NOTES:

- 1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
- CONTRACTOR SHALL CALL "ONE CALL" AT 1-800-344-8377 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET RIGHT OF WAYS.
- THIS PROJECT IS LOCATED WITHIN THE <u>JOHNSON CREEK</u> WATERSHED (CLASSIFIED AS WATER SUPPLY SUBURBAN) AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN
- NO PORTION OF THIS SITE IS LOCATED WITHIN PARKLAND OR LAND USED FOR PARK PURPOSES. (IF SUCH LAND IS INCLUDED, DOCUMENTATION OF PARKS AND RECREATION DEPT APPROVAL IS REQUIRED AT THE TIME OF SUBMITTAL FOR GENERAL PERMIT PROGRAM APPROVAL.
- NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, PER CITY OF AUSTIN AND FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS. PER FLOOD INSURANCE RATE MAP NO. 48453C0445J.
- THIS PROJECT NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
- THERE ARE NO CRITICAL ENVIRONMENTAL FEATURES WITHIN 150' OF ANY PORTION OF THIS PROJECT A FIELD INVESTIGATION HAS NOT BEEN PERFORMED AS A PART OF THIS PROJECT AND IS NOT REQUIRED.
- THE STANDARD SHEETS INCLUDED IN THIS PLAN SET WERE PROVIDED BY THE GENERAL PERMIT PROGRAM OFFICE FOR USE ON GENERAL PERMIT PROJECTS ONLY. IF ANY MODIFICATIONS TO THE SHEETS WERE MADE, THEY ARE CLEARLY INDICATED ON THE SHEET ITSELF AND IN THE COVER SHEET INDEX
- ADDITIONAL TRENCH E/S CONTROL: TRIANGULAR SEDIMENT FILTER DIKE WILL BE INSTALLED ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.
- PROJECT SCHEDULE MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM (GPP) COORDINATOR. INSTALLATION AND REMOVAL OF TEMPORARY AND PERMANENT EROSION/SEDIMENTATION CONTROLS MUST BE REFLECTED IN THE SCHEDULE, BY STATION NUMBER. GPP ARBORIST MUST BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
- APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED. ADDITIONALLY, THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL ALL RECORDED EASEMENT DOCUMENT NUMBERS HAVE BEEN OBTAINED AND SHOWN ON PLANS.
- COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD83(CORS). PROJECT REFERENCE POINTS ARE CITY OF AUSTIN MONUMENT "J-25-1001" (CB58) HAVING COORDINATE VALUES OF N=10,085,028.06, E6=3,112,116.43 AND "H-24-1001" HAVING COORDINATE VALUES OF N=10,080,581.36, E=3,107,208.51. COMBINED SCALE FACTOR = 1.0001.
- ELEVATIONS AND CONTOURS SHOWN HEREON ARE BASED ON CITY OF AUSTIN MONUMENT "J-25-1001" (CB58) HAVING AN ELEVATION OF 579.64 FEET. NAVD88 VERTICAL DATUM.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON VISIBLE SURFACE FEATURES, PAINT MARKS AND RECORD UTILITY PLANS PREPARED BY OTHERS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FIELD VERIFYING THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES. PRIOR TO EXCAVATION OR DRILLING "ONE-CALL" TEXAS 811 SHOULD BE CONTACTED.
- CONTRACTOR SHALL STAKE ALL PROPOSED SERVICE CONNECTIONS LOCATED WITHIN THE CRITICAL ROOT ZONE OF TREES 8" IN CALIPER AND LARGER AT LEAST 21 CALENDAR DAYS PRIOR TO CONSTRUCTION OF SUCH SERVICES. STAKING SHALL CONSIST OF A LATH WITH NAIL AND PAINT MARKINGS. IN CASES WHERE A STAKE CANNOT BE PLACED WITHOUT DAMAGING PROPERTY, CONTRACTOR MAY USE PAINT ONLY. ONCE STAKING IS COMPLETE ITS THE CONTRACTORS RESPONSIBILITY TO INFORM THE CITY OF AUSTIN CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR HOURS. THE CITY OF AUSTIN 'S CONSTRUCTION INSPECTOR WILL THEN COORDINATE A FIELD REVIEW OF THE SERVICE LOCATIONS WITH THE GENERAL PERMIT PROGRAM COORDINATOR AND PROPERTY OWNERS. SERVICE LINE LOCATIONS MAY BE ADJUSTED BASED ON THE REVIEW AND WILL BE RESTAKED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL SERVICE LINE STAKING SHALL BE MAINTAINED UNTIL THE SERVICE IS INSTALLED.

GENERAL PERMIT PROGRAM CORRECTIONS RECORD DESCRIPTION PRINTED ON: *Nov 12, 2020 - 9:30am*

CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT

NOVEMBER 2020

IFBXXX CLMC643 C.I.P. NO. 2231.334

AWU PROJECT # 2231.334 ROW ID # 11903857

UC TRACKING # UUC-180412-04-02

PROJECT LOCATIONS MAPSCO: MAP 554V PZ: 2231.113 NOT TO SCALE CITY GRID: N25 LOCATION MAP

PROJECT INFORMATION:

STREET ADDRESS: BRYKER DRIVE AND W. 34TH STREET AUSTIN, TX 78724 COA GRID: N25 MAPSCO: MAP 554V

CLIENT/SPONSOR: CITY OF AUSTIN AUSTIN WATER UTILITY 625 EAST 10TH STREET

AUSTIN, TX 78701

AZARI HOUMAN, PE

(512) 972-2049

CONTACT:

PROJECT MANAGEMENT: CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS PROJECT MANAGEMENT DIVISION 505 BARTON SPRINGS RD., STE. 900 AUSTIN, TX 78704

CONTACT:

SHOBANA ANGIA, PMP PHONE: (512) 974-1581

SUBMITTAL PREPARED BY:



AUSTIN. TX 78703 TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION NUMBER F-533

JEFFREY RECK, P.E. PH: (210) 469-3351 EMAIL: JÉFFREY.RECK@ARCADIS.COM



APPROVALS: SUBMITTED FOR APPROVAL BY 11-12-2020 PROJECT ENGINEER - JEFFREY RECK, P.E. APPROVED BY: December 03, 2020 GP-2020-0000.AWU DEVELOPMENT PERMIT NUMBER SUBMITTAL DATE **AUSTIN WATER UTILITY** PROJECT SPONSOR ANNUAL GENERAL PERMIT NUMBER

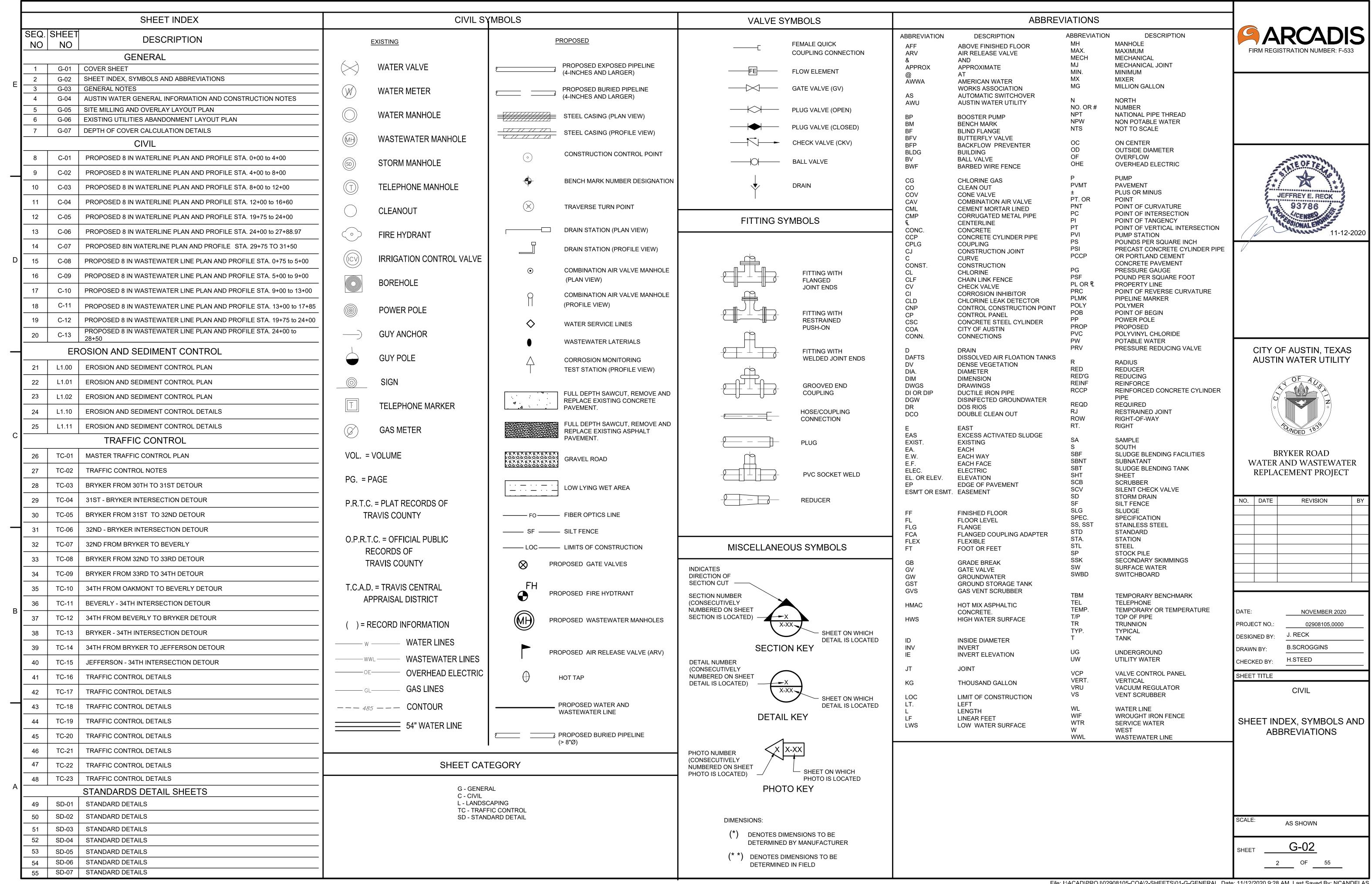
AUSTIN WATER

EXPIRATION DATE

December 02, 2023

GENERAL PERMIT PROGRAM APPROVAL DOES NOT CONSTITUTE UTILITY ALIGNMENT/ASSIGNMENT APPROVAL RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

AULCC NUMBER



WATER AND WASTEWATER CONSTRUCTION NOTES

- 1. ALL RESTORATION AND REPLACEMENT OF EXISTING IMPROVEMENTS WITHIN WATER AND WASTEWATER EASEMENTS SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION REQUIREMENTS.
- 2. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO PROTECT ROADWAY FACILITIES AT ALL TIMES.

CONSTRUCTION PHASING

- 1. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT A DETAILED PROJECT CONSTRUCTION SCHEDULE IN EITHER MICROSOFT PROJECT OR SURE TRACK THAT DEMONSTRATES COMPLIANCE WITH THE TRAFFIC CONTROL PLAN AND THE PROPOSED CONSTRUCTION SEQUENCING.
- 2. PROJECT SEQUENCING SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD NOTES AND DETAILS: TREE PROTECTION AND ENVIRONMENTAL NOTES IN THIS PLAN SET, PROJECT SEQUENCING NOTES.

GENERAL CONSTRUCTION NOTES

- . ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE DESIGN ENGINEER FOR THE ADEQUACY OF THE WORK.
- 2. CONTRACTOR TO PROVIDE DUST CONTROL DURING CONSTRUCTION. ANY DAMAGE TO EXISTING PAVEMENT OR IMPROVEMENTS ON PROPERTY ADJACENT TO THE CONSTRUCTION AREA SHALL BE RESTORED BY THE CONTRACTOR TO PRE-CONSTRUCTION CONDITION.
- 3. WORK IS PERMITTED FROM 8AM TO 5PM. MONDAYS THROUGH FRIDAYS.
- 4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE STATE STATUES AND U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (O.S.H.A.). COPIES OF O.S.H.A STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED MATERIALS MAY BE OBTAINED FROM O.S.H.A. @ 611 EAST 6TH STREET. RPP, 303 AUSTIN, TEXAS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THIS PROJECT. IF THE CONTRACTOR BECOMES AWARE OF POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT INSPECTOR AND THE PROJECT MANAGER WITHIN 24 HOURS.
- CONTRACTOR WILL BE RESPONSIBLE FOR COSTS INCURRED AS A RESULT OF UTILITY RELOCATIONS PERFORMED FOR CONTRACTOR'S CONVENIENCE AND FOR UTILITIES DAMAGED BY THE CONTRACTOR. REPAIRS TO UTILITIES DAMAGED BY CONSTRUCTION SHALL BE AT CONTRACTOR'S EXPENSE.
- 7. ANY EXISTING SIDEWALKS, CURBS, OR DRIVEWAYS DAMAGED BY THE CONTRACTOR SHALL BE REMOVED AND RESTORED WITH MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL AND SHALL BE AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE NOTED.
- 8. ANY EXISTING SITE ELEMENTS IMPACTED BY THE CONTRACTOR SHALL BE REMOVED AND RESTORED WITH MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL AND SHALL BE AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE NOTED.
- 9. EQUIPMENT AND MATERIALS SHALL BE STORED AT LOCATIONS SHOWN ON PLANS AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- 10. UTILITY SERVICES SHALL BE MAINTAINED TO RESIDENCES AND BUSINESSES AT ALL TIMES. BEFORE DISCONNECTING ANY WATER OR WASTEWATER LINE, THE CONTRACTOR MUST NOTIFY THE CITY IN WRITING REQUESTING APPROVAL AND PROVIDE A DETAILED PLAN AT LEAST 48 HOURS IN ADVANCE, DESCRIBING AN ALTERNATE MEANS OF WATER OR WASTEWATER CONVEYANCE FOR THE INTERRUPTED SECTION.
- 11. ANY EXISTING IMPROVEMENTS, INCLUDING DRAINAGE FACILITIES, DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR AT HIS / HER EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN PRECONSTRUCTION CONDITION.
- 12. ANY PORTION OF THIS PROJECT WHICH IS IMPROPERLY PLACED AND / OR CONFLICTS WITH ANY ROADWAY STRUCTURE SHALL BE REMOVED AND CORRECTLY PLACED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL ASSOCIATED COSTS.
- 13. ALL ELEVATIONS ARE BASED ON USGS DATUM. HORIZONTAL DATUM IS TEXAS STATE PLANE COORDINATE SYSTEM. SEE PLANS FOR LOCATION OF BENCHMARKS.
- 14. SURVEY WAS COMPLETED BT MALDONADO-BURKETT INTELLIGENT TRANSPORTATION SYSTEMS, LLP ON JANUARY 17, 2018.
- 15. CONTRACTOR IS PERMITTED TO STORE FUEL ON SITE FOR THE SOLE PURPOSE OF OPERATING AND MAINTAINING THE TEMPORARY FLOW MANAGEMENT SYSTEM. THE CONTRACTOR SHALL UTILIZE TEMPORARY E/S CONTROLS, SECONDARY CONTAINMENT, AND SPILL PREVENTION FOR FUEL STORAGE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CITY OF AUSTIN REQUIREMENTS. THESE ITEMS SHALL BE APPROVED BY THE GPP COORDINATOR.

NOTES FOR CONSTRUCTION STAGING AREA

1. ALL CONSTRUCTION ACTIVITIES, INCLUDING MATERIAL STORAGE AND STAGING AREA, SHALL BE LOCATED WITHIN THE LIMITS OF CONSTRUCTION AS INDICATED ON THE DRAWINGS. ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION AT THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO CITY OF AUSTIN STANDARD NOTES AND DETAILS: TREE PROTECTION AND ENVIRONMENTAL NOTES IN THIS PLAN SET, FOR FURTHER REQUIREMENTS.

TEMPORARY SPOILS AREA NOTES

- NO SPOILS STORAGE IS ALLOWED WITHIN A CRITICAL WATER QUALITY ZONE OR 100-YEAR FLOOD PLAIN.
- 2. LOCATION, SIZE, HEIGHT, CAPACITY AND DURATION OF TEMPORARY SPOILS AREAS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO THE PRE CONSTRUCTION MEETING. CONTRACTOR SHALL HAVE PROPOSED LOCATIONS APPROVED BY OWNER'S REPRESENTATIVE AND CITY'S GENERAL PERMIT COORDINATOR WITHIN LIMITS OF CONSTRUCTION.
- 3. SPOILS ADJACENT TO TRENCHES SHALL BE USED FOR BACKFILL IMMEDIATELY UPON COMPLETION OF THE PIPE INSTALLATION AND ANY EXCESS BE REMOVED TO THE TEMPORARY SPOILS AREA DAILY.
- 4. SPOILS IN THE STOCKPILE AREAS SHALL HAVE SIDE SLOPES THAT DO NOT EXCEED 3:1. A SLOPE OF 1:1 IS ACCEPTABLE AS LIMITED BY AVAILABLE SPACE. POSITION SILT FENCE AT TOE OF SLOPE AS DICTATED BY SPACE REQUIREMENTS. CONTRACTOR TO COVER ALL SPOILS WITH A TARP TO RESTRICT SEDIMENT TRANSPORT DURING A RAIN EVENT. CONTRACTOR TO PROVIDE E/S CONTROLS IN ADDITION TO TARP.
- 5. ALL AREAS SHALL BE RESTORED TO ORIGINAL GRADE (AS IT EXISTED PRIOR TO CONSTRUCTION), UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

SEQUENCING OF CONSTRUCTION

THE SEQUENCE OF CONSTRUCTION IS INTENDED TO DEMONSTRATE A CONSTRUCTION APPROACH THAT MAINTAINS SANITARY SEWER SERVICE AND MINIMIZES IMPACTS. THIS SEQUENCE OF CONSTRUCTION DOES NOT IDENTIFY ALL CONSTRUCTION ITEMS OR STEPS, NOR IS THE ENGINEER RESPONSIBLE FOR THE ACTUAL CONSTRUCTION SEQUENCING UTLITIZED. CONTRACTOR IS TO DEVELOP A DETAILED CONSTRUCTION SEQUENCING PLAN AND CONSTRUCTION SCHEDULE FOR THE PROJECT.

PRIOR TO COMMENCING SITE WORK, CONTRACTOR SHALL PERFORM THE FOLLOWING:

- 1. CONTRACTOR SHALL CONTACT RESIDENT PROJECT REPRESENTATIVE (RPR) AND CITY 48 HOURS PRIOR TO BEGINNING ANY WORK.
- 2. CONTRACTOR SHALL MARK LIMITS OF CONSTRUCTION BY FLAGGED LATHES OR SILT FINCE WHERE APPLICABLE.
- 3. CONTRACTOR SHALL ATTEND OFFICE PRESCONSTRUCTION CONFERENCE WITH THE OWNER, GENERAL PERMIT PROGRAM COORDINATOR AND RPR. INCLUDE REPRESENTATIVES FROM COA AND UTILITY AS APPROPRIATE.
- 4. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES AND TREE PROTECTION PRIOR TO CLEARING, GRUBBING, GRADING, EXCAVATING, ETC. AS INDICATED ON THE PLANS IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL. NOTIFY GENERAL PERMIT PROGRAM COORDINATOR AND RPR PRIOR TO INSTALLATION.
- 5. CONTRACTOR SHALL SUBMIT A PLAN FOR KEEPING EXISTING FACILITIES IN OPERATION WHILE CONSTRUCTING PROPOSED FACILITIES. EXISTING FACILITY ACTIVITIES SHALL NOT CEASE DURING CONSTRUCTION. CONTRACTOR SHALL DEFINE ANY PLANNED PHASING OF CONSTRUCTION ACTIVITY. ADDITIONAL PRE-CONFERENCES (FOR PHASES) MAY BE REQUIRED BY THE GENERAL PERMIT OFFICE. PHASING, IF PROPOSED BY THE CONTRACTOR, WILL BE DELINEATED AND THE INFORMATION PRVOIDED TO THE GENERAL PERMIT OFFICE PRIOR TO THE FIELD PRECONSTRUCTION MEETING.
- CONTRACTOR SHALL CONDUCT A SITE SUVEY AND LOCATE ALL EXISTING UTILITIES WITHIN LIMITS OF CONTRUCTION INCLUDING, BUT NOT LIMITED TO, EXISTING MANHOLES, PIPELINES, DUCT BANKS, AND PIPE CASING.

DURING SITE WORK, CONTRACTOR SHALL PERFORM THE FOLLOWING:

- 1. CONTRACTOR SHALL CONSTRUCT NEW SEWER MAIN, MANHOLES AND SEWER SERVICES PRIOR TO CONSTRUCTION OF WATER MAINS AND WATER SERVICES. INSTALL SEWER MAIN IN DOWNSTREAM TO UPSTREAM DIRECTION. PRIOR TO STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY TIE-IN LOCATIONS AND ELEVATIONS WITH EXISTING SEWER MAINS AND NOTIFY ENGINEER OF ANY DISCREPANCIES WITH PLAN ELEVATIONS.
- 2. CONTRACTOR SHALL BEGIN CONSTRUCTION OF WATER MAIN AND WATER SERVICES AFTER NEW SEWER MAIN, MANHOLES AND SEWER SERVICES ARE INSTALLED. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATIONS OF EXISTING WATER MAIN TIE-INS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES WITH PLANS.

GENERAL PERMIT PROGRAM GENERAL CONSTRUCTION NOTES

- 1. CONTRACTOR MUST OBTAIN UTILITY EXCAVATION PERMITS, FOR EACH RIGHT-OF-WAY EXCAVATED, FROM THE CITY OF AUSTIN PUBLICS WORKS DEPARTMENT CONSTRUCTION INSPECTION DIVISION (512-974-7265) PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL PROVIDE A ONE CALL CENTER CONFIRMATION NUMBER.PRIOR TO ANY DIRECTIONAL DRILLING OR BORING, CONTRACTOR MUST CONTACT THE CITY OF AUSTIN PUBLICS WORKS DEPARTMENT CONSTRUCTION INSPECTION DIVISION (512-974-7161) TO SCHEDULE A MANDATORY PRE-BORE INSPECTION.
- 2. CITY OF AUSTIN UTILITIES REQUIRE A MINIMUM 2' (FOOT) VERTICAL AND 5' (FOOT) HORIZONTAL SEPARATION DISTANCE, MEASURED FROM OUTER DIAMETER TO OUTER DIAMETER. ANY VARIANCE FROM CITY UTILITIES MUST BE OBTAINED IN WRITING AND SUBMITTED TO THE CITY OF AUSTIN PUBLICS WORKS DEPARTMENT CONSTRUCTION INSPECTION DIVISION (512-974-7265).ALL STREET TRENCH REPAIRS ARE TO BE DONE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD DETAILS FROM THE 1100 SERIES.
- 3. ALL TRENCH REPAIR IN UNFINISHED SURFACES TO BE DONE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD DETAIL 510S-5.
- 4. FOR EXCAVATION WITHIN 100 FEET OF A MOONLIGHT TOWER OR WITHIN 100 FEET OF A GUY WIRE SUPPORTING A MOONLIGHT TOWER, EXCAVATION OR CONSTRUCTION PLANS AND SEQUENCING INFORMATION THAT DEMONSTRATES THAT THE MOONLIGHT TOWER WILL BE ADEQUATELY PROTECTED FROM DAMAGE DURING EXCAVATION OR CONSTRUCTION MUST BE SUBMITTED TO CITY OF AUSTIN PUBLIC WORKS DEPARTMENT AUSTIN ENERGY (512-505-7611).
- 5. VERIFY THE LOCATION OF UNDERGROUND UTILITIES AT LEAST 100' (FEET) IN ADVANCE OF ALL PROPOSED UTILITY CROSSINGS, AND ALSO LOCATIONS WHERE THE PROPOSED FACILITIES ARE DEPICTED TO RUN PARALLEL TO AND WITHIN FIVE FEET OF EXISTING FACILITIES.
- 6. CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT 974-7161 PRIOR TO THE INSTALLATION OF ANY FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHODS OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO START OF THE BACKFILL OPERATION.
- 7. FOR SLOPES OR TRENCHES MORE THAN FIVE (5) FEET IN DEPTH, A NOTE MUST BE ADDED TO THE GENERAL CONSTRUCTION NOTES STATING THAT: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 509 AND APPLICATION REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)". COPIES OF THE OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE, INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 E. 6TH STREET, AUSTIN, TEXAS.

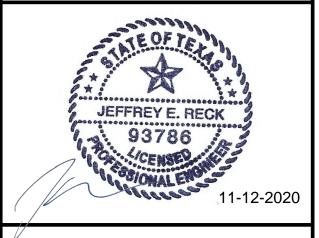
DEVELOPER INFORMATION		
OWNER:PHONE:	ADDRESS:	
NAMEOWNER'S REPRESENTATIVE RESPONSIB		
NAMEOR FIRM RESPONSIBLE FOR EROSION/SE		PERSON CE.

OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE

NAME

PHONE





CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

REVISION

BY

NO. DATE

DRAWN BY

CHECKED BY:

DATE:		NOVEMBER 2020
PROJECT NO.:		02908105.0000
DESIG	NED BY:	J. RECK

SHEET TITLE

CIVIL

H.STEED

B.SCROGGINS

GENERAL NOTES

SCALE: AS SHOWN

SHEET G-03

3 OF 55

PERSON

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

REVIEWED BY AUSTIN WATER APPLIES ONLY TO FACILITIES WITHIN PUBLIC STREETS OR PUBLIC UTILITY EASEMENTS. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance of terms and conditions as set forth below. If you do not agree to all of the terms and conditions, please contact Austin Water pipeline engineering, project coordinator prior to use of the referenced information. Please be advised that the attached files are in a format that can be altered by the user. Due to this fact, any reuse of the data will be at the user's sole risk without liability or legal exposure to The City of Austin and user shall indemnify and hold harmless The City of Austin from all claims, damages, losses and expenses including attorney's fees arising out of or resulting from using the digital file. In addition, it is the responsibility of the user to compare all data with the PDF version of this drawing. In the event there is a conflict between the PDF version drawing and the electronic file, the PDF version drawing shall prevail.

INSPECTION NOTES

Please contact CID Inspections for arrangements for payment of Inspection fees and job assignment for Inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

PROJECT INFORMATION¹

AW INFRASTRUCTURE INFORMATION							
PROPOSED PRODUCT TYPE (TO BE INSTALLED) LENGTH OF PIPE (L.F.) SIZE OF PIPE (INCH) NO. OF SERV							
WATER MAIN	2,790	8-INCH	NA				
WASTEWATER MAIN	2,770	8-INCH	NA				
RECLAIMED WATER MAIN	NA	NA	NA				
WATER SERVICE	NA	1-INCH	46				
WASTEWATER SERVICE	NA	6-INCH	50				
RECLAIMED WATER SERVICE	NA	NA					

EXPAND OR REQUCE TABLE AS NEEDEO*
THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING CUIDELINES

STANDARD CONSTRUCTION NOTES

November 23, 2017

- THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK. CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM AUSTIN TRANSPORTATION DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING
- CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY. 8. AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY AUSTIN TRANSPORTATION INSPECTION OR DEVELOPMENT SERVICES DEPARTMENT (DSD) INSPECTIONS AT THE NUMBER INDICATED ON THE PLANS BY THE AW PLAN
- 4. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT
- 5. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.
- THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY
- THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04. PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30
- CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW 27-A and WW 27-F. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 5119.4 AND SHALL BE PAINTED FLYNT ALUMINUM OR EQUAL. FIRE HYDRANTS AND ASSOCIATED VALVES, TEN (10) YEARS AND OLDER WILL BE REQUIRED TO BE REPLACED WITH A NEW FIRE HYDRANT AND APPERTENUNANCES.
- 1. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL
- WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K
- COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972-0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE
- 16. WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLTIONS. ALL MANHOLES IN UNPAYED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE
- CITY OF AUSTIN. 18. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE 19. ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 - DRINKING WATER
- STANDARDS, CHAPTER 217 DESIGN CRITERIA FOR SEWERAGE SYSTEMS AMD CHAPTER 210 DESIGN CRIERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES. 20. CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM. SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL BE SUBMITTED FOR AUSTIN
- WATER APPROVAL FOR LARGE DIAMETER PRE-CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS. THE SUBMITTAL WILL NEED TO BE INCLUDED IN THE PLAN SET AS THRU A CORRECTION PROCESS.
- 22. VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY "LEAD FREE" ACCORDING TO THE US SAFE DRINKING WATER ACT. EXAMPLES ARE VALVES (CORPORATION STOP, CURB STOP, AND PRESSURE REDUCING), NIPPLES, BUSHINGS, PIPE, FITTINGS, BACKFLOW PREVENTERS AND FIRE HYDRANTS. TAPPING SADDLES AND 2 INCH AND LARGER GATE VALVES ARE THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT EITHER BY MARKINGS ON THE COMPONENT OR ON THE PACKAGING SHALL NOT BE
- 24. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINTENANCE, VALVES AND HYDRANT SERVICES, SUPERVISING AW PIPELINE TECHNICIAN AT
- 25. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT, SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE DSD INSPECTOR.
- 26. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT INFORMATION FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS, THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
- 27. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.

EXYES

- 28. ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
- METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS. PROTECTED STREET STATUS IS SUBJECT TO CHANGE OVER TIME. IT IS THE OWNER'S RESPONSIBILITY TO CONFIRM THE STREET STATUS PRIOR TO CONSTRUCTION AS PROTECTED STREET STATUS WILL DIRECTLY IMPACT THE CONSTRUCTION COSTS. IF PROTECTED STREETS ARE PROPOSED TO BE DISTURBED, APPROVAL FROM THE STREET AND BRIDGE DIVISION OF THE TRANSPORTATION DEPARTMENT IS REQUIRED.

DOES THIS PROJECT NEED AULCC REVIEW?

IF YES, PLEASE PROVIDE UCC#_ 180412-04-04

NOTE: IF THE PROJECT IS LOCATED WITHIN FULL PURPOSE JURISDICTION, A RIGHT-OF-WAY REVIEW, THROUGH THE AULCC PERMIT PROCESS WILL BE REQUIRED.

AW EXPIRATION STAMP THREE YEARS FROM THE DATE OF SIGN-OFF

UTILITY CRITERIA MANUAL WAIVER SUMMARY NOTES AND EXCEPTION GUIDELINES

SHEET NO.	DESCRIPTION	APPROVAL
C-10 AND C-11	WAIVER TO UCM SECTION 2.9.C.4: THE WASTEWATER SERVICE LINES BETWEEN STA 12+58.06 TO 17+76.13 DO NOT MEET THE REQUIREMENT TO BE AT LEAST 2' BELOW THE PROPOSED WATERLINE. PROPOSED SEWER MAIN AT THIS LOCATION COULD NOT BE LOWERED DUE TO THE SEPARATION REQUIRED AT CROSSING WITH THE 54" WATER MAIN AT STA 17+64.42. SERVICE LINES ARE TO BE CONSTRUCTED FOR 150 PSI PRESSURE-RATED PIPING AND CEMENT-STABILIZED IN SAND.	Que. Chym P. E.
C-01	WAIVER TO UCM SECTION 2.9.4.D.7: THE WATER LINE AT STA 2 +84.20 HAS LESS THAN 4' OF BURIED COVER. THE PIPE DEFLECTION AT THIS LOCATION HAS BEEN CALCULATED TO BE 0.85% WHICH IS WITHIN ALLOWABLE LIMITS BASED ON AWWA M23. SEE SHEET G-07 FOR CALCULATIONS.	Que. Capo P. E.
C-10 AND C-11	WAIVER TO UCM SECTION 2.9.4.B.5: THE WASTEWATER LINE BETWEEN STA 12+58.06 AND 14+62.00 HAS A SLOPE OF 0.33%. THE RESULTING VELOCITY DURING PEAK DRY WEATHER FLOW IS 3.18 FEET PER SECOND.	Clow P. E.

WAIVER:

COA AUSTIN WATER APPROVES WAIVER TO UTILITY CRITERIA MANUAL SECTIONS 2.9.4.C.4, 2.9.D.7,AND 3.9.4.B.5 FOR THE UTILITY RELOCATION/ADJUSTMENTS SPECIFIC TO THE SCOPE OF THIS PROJECT UNDER THE AUTHORITY OF THE UTILITY DEVELOPMENT SERVICES DIVISION, PIPELINE ENGINEERING.

December 03, 2020

EXISTING SERVICE LINES THAT DO NOT MEET HORIZONTAL SEPARATION REQUIREMENTS

SHEET NO.	ADDRESS	STATIONING
C-02 C-09	3200 BRYKER DRIVE	STA 8+40.02
C-03 C-10	3206 BRYKER DRIVE 3209 BRYKER DRIVE	STA 9+97.42
C-03 C-10	3208 BRYKER DRIVE 3211 BRYKER DRIVE	STA 10+61.22
C-03 C-10	3301 BRYKER DRIVE 3302 BRYKER DRIVE	STA 12+64.13
C-04 C-11	3309 BRYKER DRIVE 3310 BRYKER DRIVE	STA 15+21.73
C-06 C-12	1702 W 34TH STREET	STA 20+89.76
C-05 C-13	1802 W 34TH STREET	STA 26+39.60

CITY OF AUSTIN APPROVAL BLOCK

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CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY
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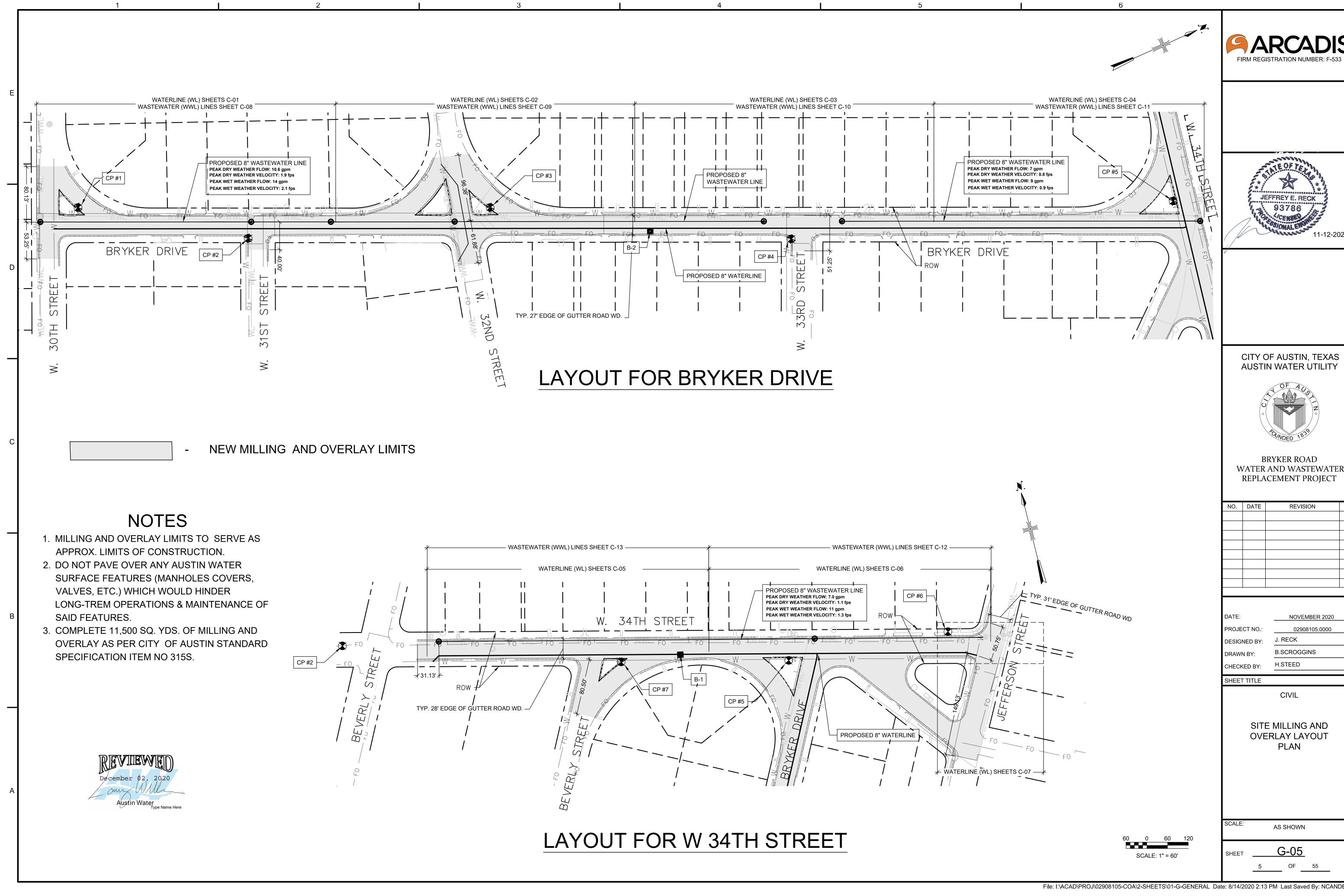
DATE: NOVEMBER 2020 PROJECT NO.: 02908105.0000 J. RECK **DESIGNED BY: N.CANDELAS** RAWN BY H.STEED CHECKED BY: SHEET TITLE

CIVIL

AUSTIN WATER GENERAL INFORMATION AND **CONSTRUCTION NOTES**

AS SHOWN

G-04 OF



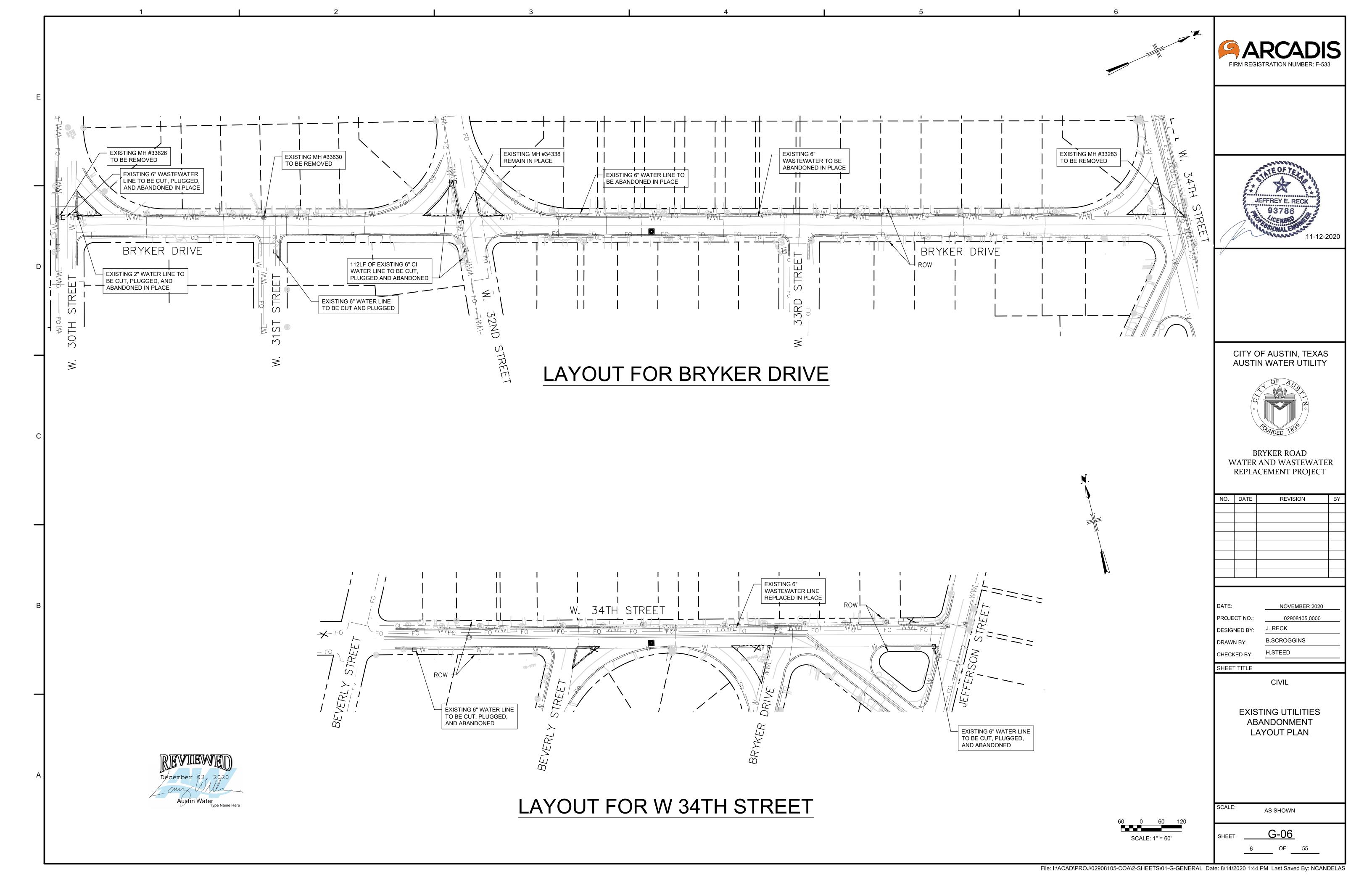


Table 1

MAXIMUM RECOMMENDED DIAMETRIC DEFLECTION

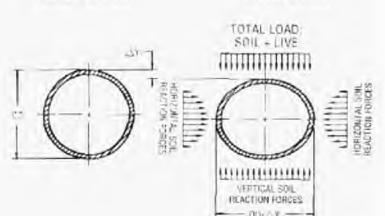
PVC Pressure Pipes 5%
PVC Sewer / Drain Pipes 7½%
PVC Electrical Conduits 5%

(JM Eagle, 2009)

Figure 1

FLEXIBLE PIPE DEFLECTION

UNDEFLECTED FLEXIBLE PIPE DEFLECTED FLEXIBLE PIPE



(JM Eagle, 2009)

lowa Equation

 $\%\frac{\Delta Y}{D} = \frac{k(T_L W_E + W_L + W_S)}{0149PS + 0.061E'} (100)$

where:

 $\% \frac{\Delta Y}{D}$ = vertical deflection, %

 ΔY = vertical deflection or change in diameter, in.

= diameter, in.

k =bedding constant, use 0.1

 T_L = time-lag factor, use 1.0, 1.5, or 2.0

 W_E = earth load pressure, psi W_L = live load pressure, psi

 W_5 = surcharge pressure, psi

PS = pipe stiffness, lbf/in./in.
 E' = modulus of soil reaction, psi

(AWWA M23, 2020)

Selection of Factors

- \bigcirc D = 8 in. (see drawings)
- k = 0.1
- $T_L = 1.5$ (conservative estimate)
- $W_E = 24$ psi

Calculated using AWWA M23 Equation 4-5

Prism Load: $W_p = Hw D \text{ (lb/lin ft)}$ (Eq 4-3)

where:

 $P = \text{pressure caused by soil weight at depth H, lb/ft}^2$

 $w = \text{unit weight of soil, lb/ft}^3$

H = depth at which soil pressure is desired, ft

D = pipe diameter

The prism load can be converted to lb/in^2 for W_E as follows:

Earth Load Pressure: $W_E = \frac{W_p}{144}$ (Eq 4-5)

(AWWA M23, 2020)

H = 3.6 ft (see drawings)

w = 120 pcf (see Geotechnical Report)

D = 8 in (see drawings)

 W_L = 6.36 psi Interpolated from AWWA M23 Table 4-2; assuming HS20 maximum live load

 $W_s = 0$ psi NO SURCHARGE LOADS

PS = 815 lbf/in/in From AWWA M23 Table 4-3 PVC DR14 pipe (see drawings)

E' = 6,000 psi
 From AWWA M23 Table 4-4
 Class 1 Crushed Rock Pipe Bedding (Specification 510.3)

% $\Delta Y = \frac{0.1 (1.5 \times 24.1 + 6.36 + 0)}{(0.149 \times 815 + 0.061 \times 6000)} \times 100 = 0.85\%$

Table 4-2 AASHTO HS20, HS25, and Cooper E80 live loads (psi)

AASHTO Live Loads Depth				Cooper E80 Live Loads					
				N	W_L		Depth		V _L
ft	m	psi	kPa	psi	kPa	fi	m	psi	kPa
2	0.6	13.4	92	16.8	116	3	0.9	16	110
2.5	0.8	9.7	67	12.2	84	4	1.2	14.1	97
3	0.9	7.4	51	9.2	63	5	1.5	12.2	84
4	1.2	4.7	32	5.9	41	6	1.8	10.5	72
5	1.5	3.4	23	4.2	29	7	2.1	9	62
6	1.8	2.6	18	3.2	22	.8	2.4	7.7	53
8	2.4	1.6	11	2	14	10	3.0	5.7	39
10	3.0	1.1	7.6	1.4	10	12	3.7	4.6	32
12	3.7	0.8	5.5	1.1	7.6	15	4.6	3.4	23
15	4.6	0.6	4.1	0.7	4.8	20	6.1	2.2	15
20	6.1	0.4	2.8	0.5	3.4	25	7.6	1.5	10
28	8.5	0.2	1.4	0.25	1.8	30	9.1	1.1	7.6
40	12.2	0.1	0.7	0.1	0.7	40	12.2	0.6	4.1

Note: Cooper E80 as defined by AREMA (American Railway Engineering and Maintenance-of-Way Association) in its Manual of Railway Engineering.

(AWWA M23, 2020)

Table 4-3 PVC and PVCO pipe stiffness

	Stiffness 400,000 psi	PVCO Stiffness Min. E = 500,000 psi			
DR	lbf/in./in.	Pressure Class	lbf/in./in.		
51	14	PR160, IPS	24		
41	28	PR200, IPS	48		
32.5	57	PR250, IPS	98		
27.5	96	PR150, CIOD	21		
26	115	PR200, CIOD	48		
25	129	PR250, CIOD	98		
21	224	PC165, CIOD	28		
18	364	PC235, CIOD	81		
14	815	PC305, CIOD	178		

(AWWA M23, 2020)

Table 4-4 E'values, psi

		Comp	pacted
Soil Group (USCS)	Uncompacted	Moderate 85-90% compaction	High ≥95% compaction
Class I Crushed rock	1,000	6,0	000
Class II GW GP SW SP	500	2,000	4,000
Class III GC GM SC SM CL ML CL ML	200	1,000	2,500
Class IV CL ML	100	400	1,500
Class V CH MH OH OL Pt		Do not use	

USCS: Unified Soil Classification System

1. Soil Classification in accordance with ASTM D2487.

- 2. Percent compaction is based on ASTM D698.
- For information on soil classes, see Table 4-1.

 F' values only valid for cover depths of 50 ft or less. The values of 50 ft or less.
- E' values only valid for cover depths of 50 ft or less. The values must be used with a prism load. These values are only valid for
 estimating initial deflections. A time-lag factor must be used to predict long-term deflections.

(AWWA M23, 2020)

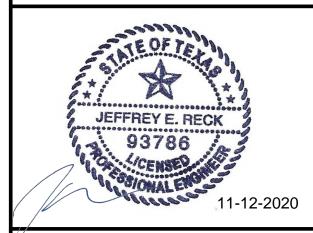
References

Tables are equations referenced are from the following sources:

"Depth of Burial for PVC Pipe" JMEagle. (2017,12 3). Retrieved from www.jmeagle.com: www.jmeagle.com/sites/default/files/TB06Depthof BurialforPVC.pdf

"PVC Pipe — Design and Installation" AWWA Manual of Water Supply Practices — Third Edition (2020).





CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY

DATE: NOVEMBER 2020

PROJECT NO.: 02908105.0000

DESIGNED BY: J. RECK

DRAWN BY: B.SCROGGINS

CHECKED BY: H.STEED

SHEET TITLE

CIVIL

DEPTH OF COVER CALCULATION DETAILS

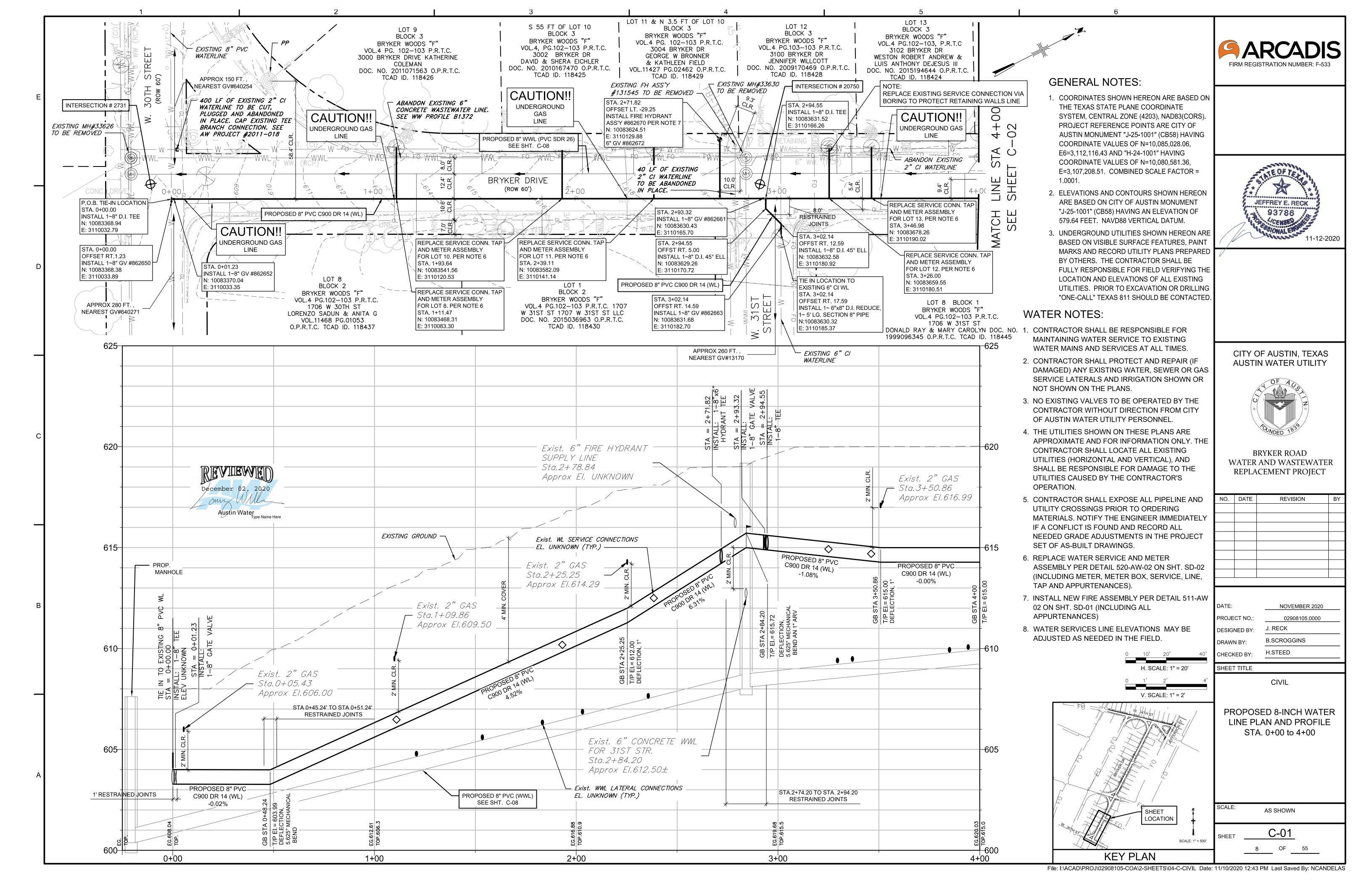
December 02, 2020

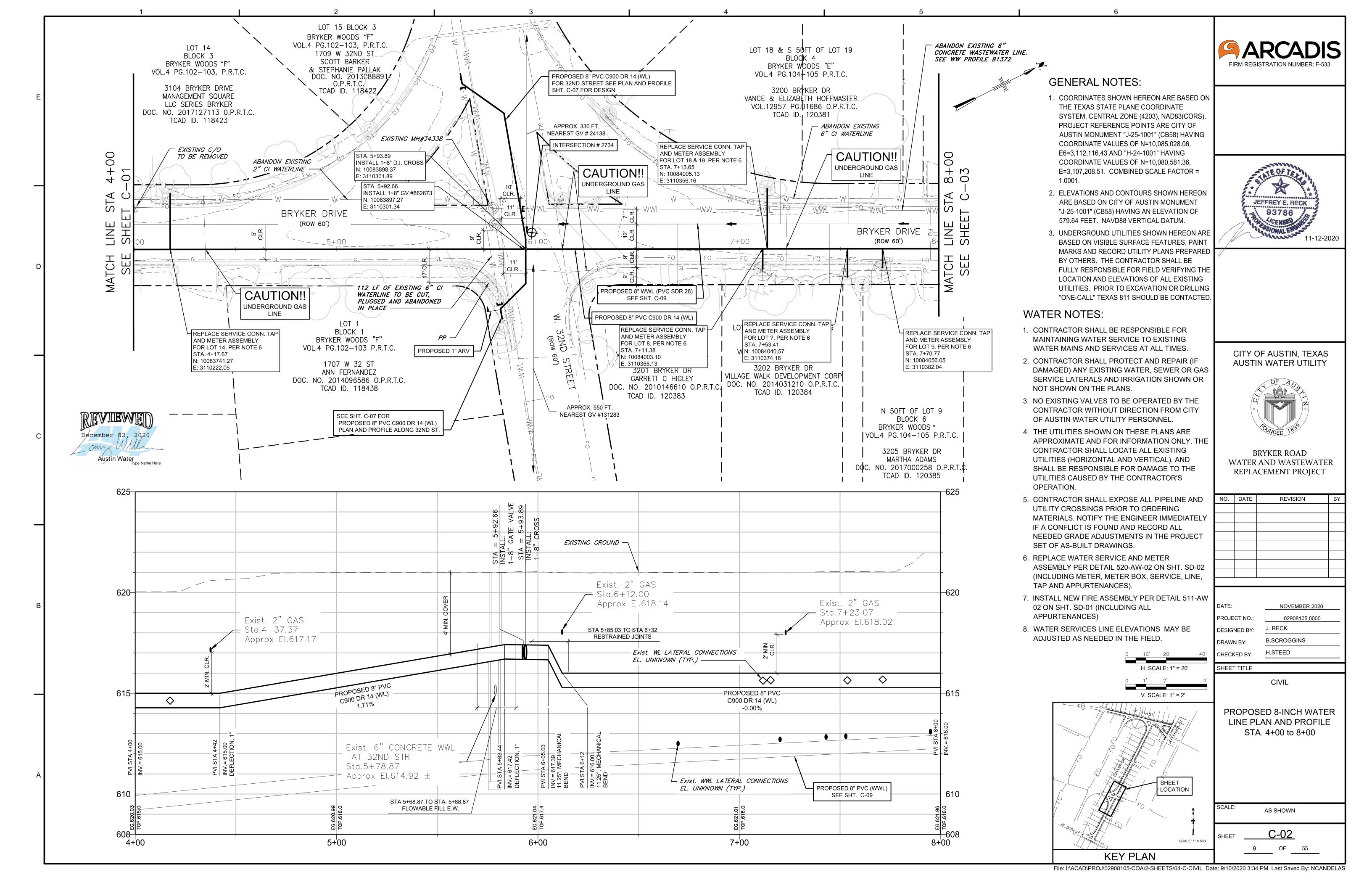
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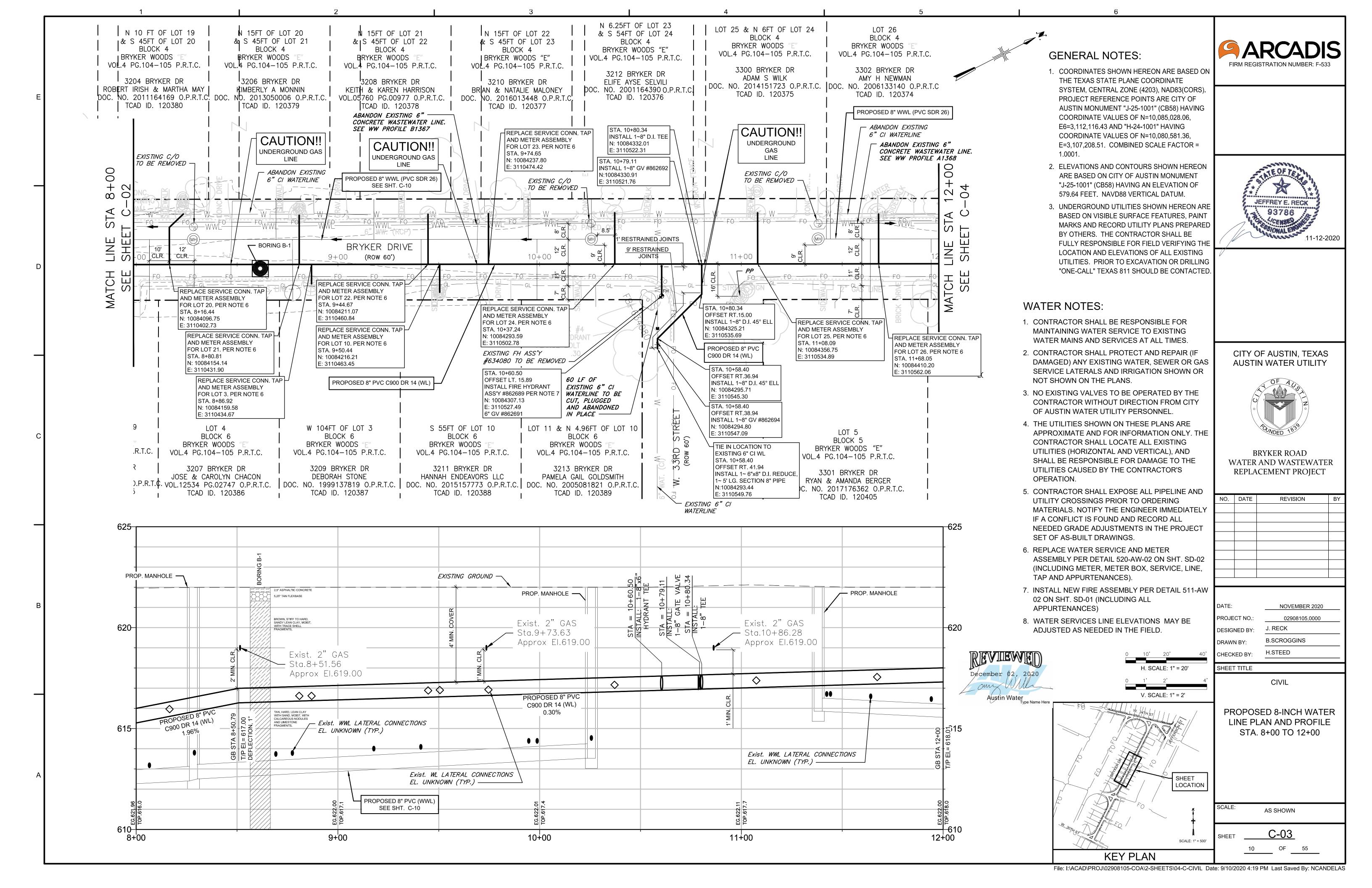
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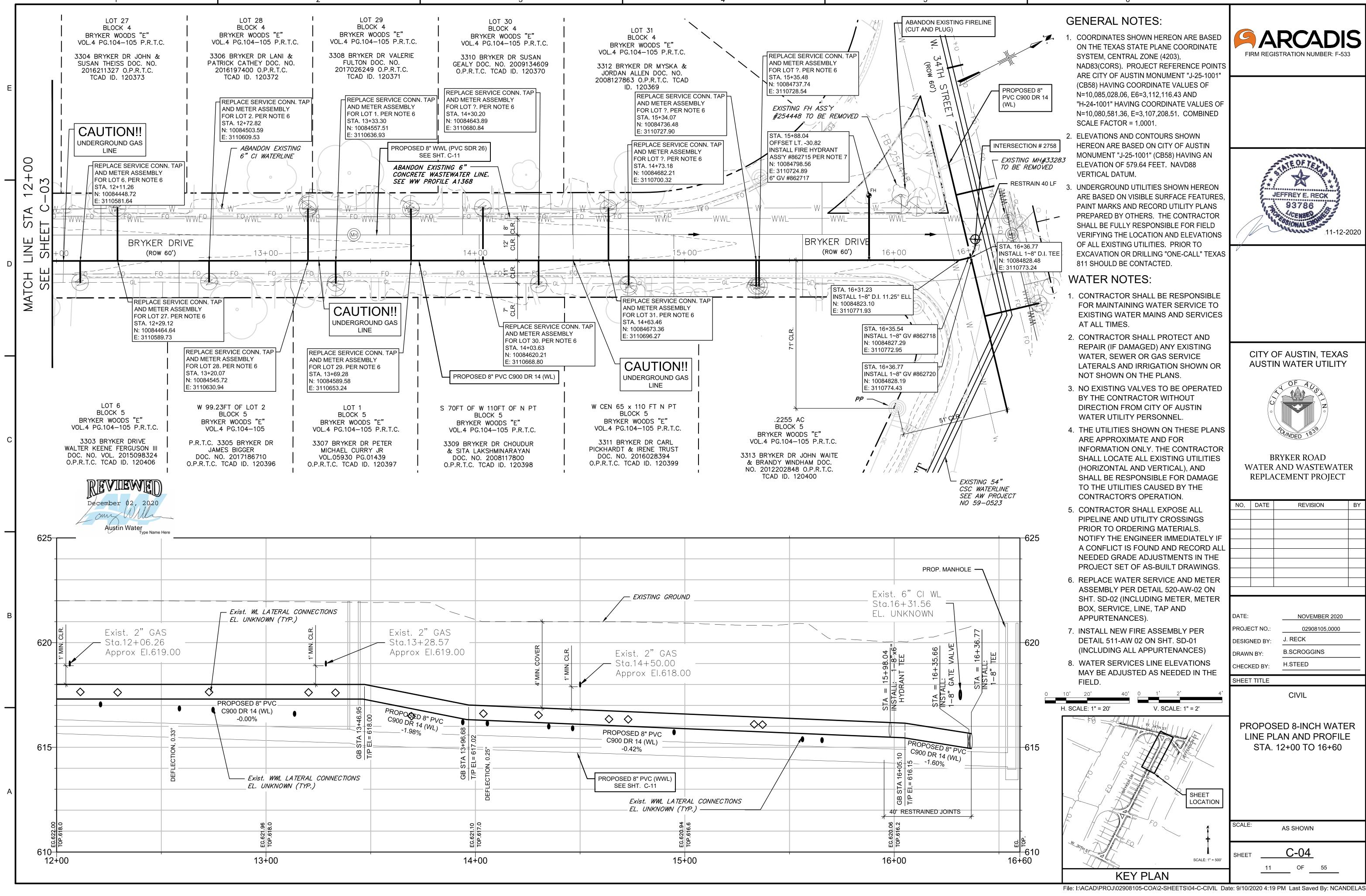
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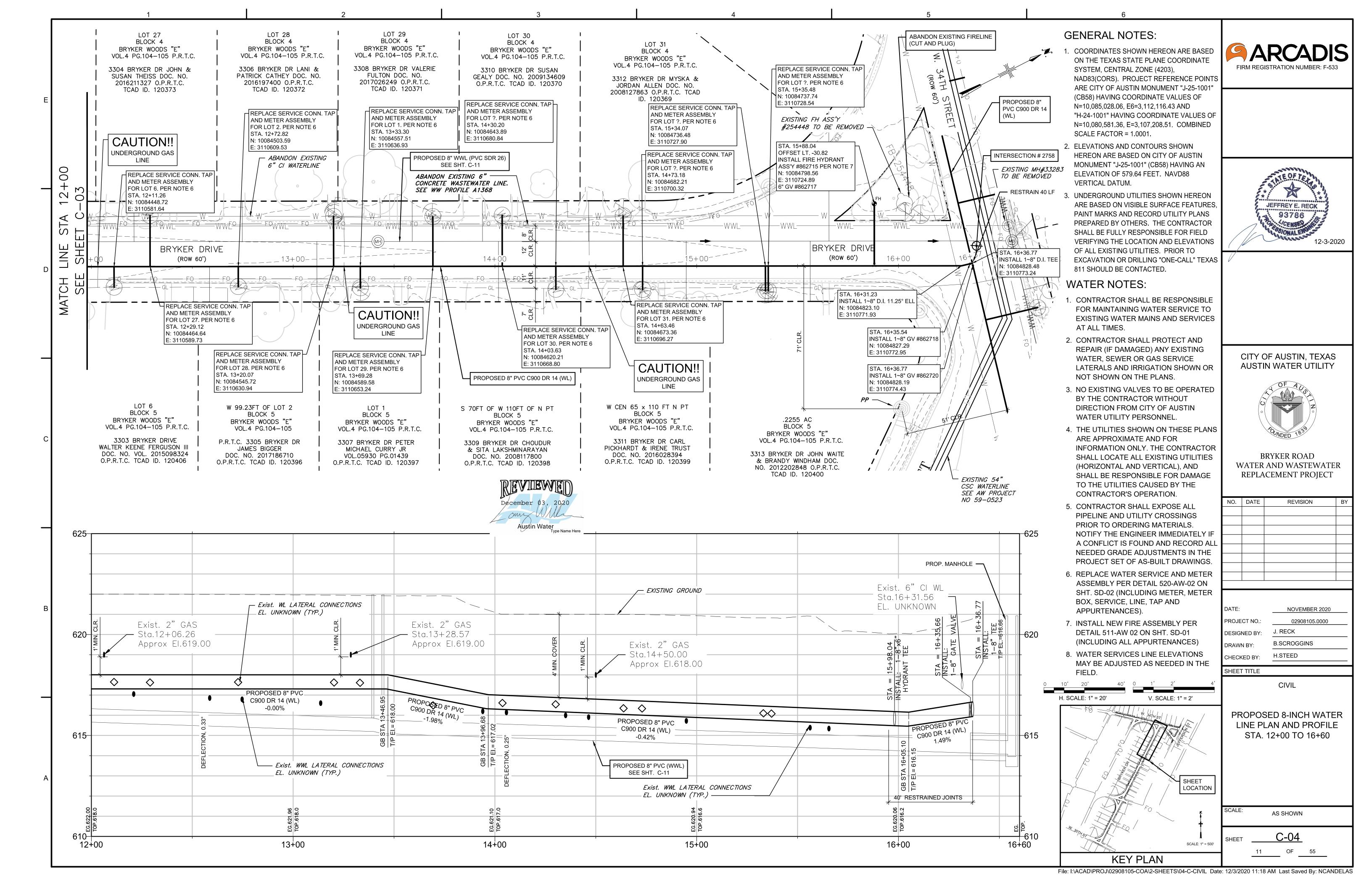
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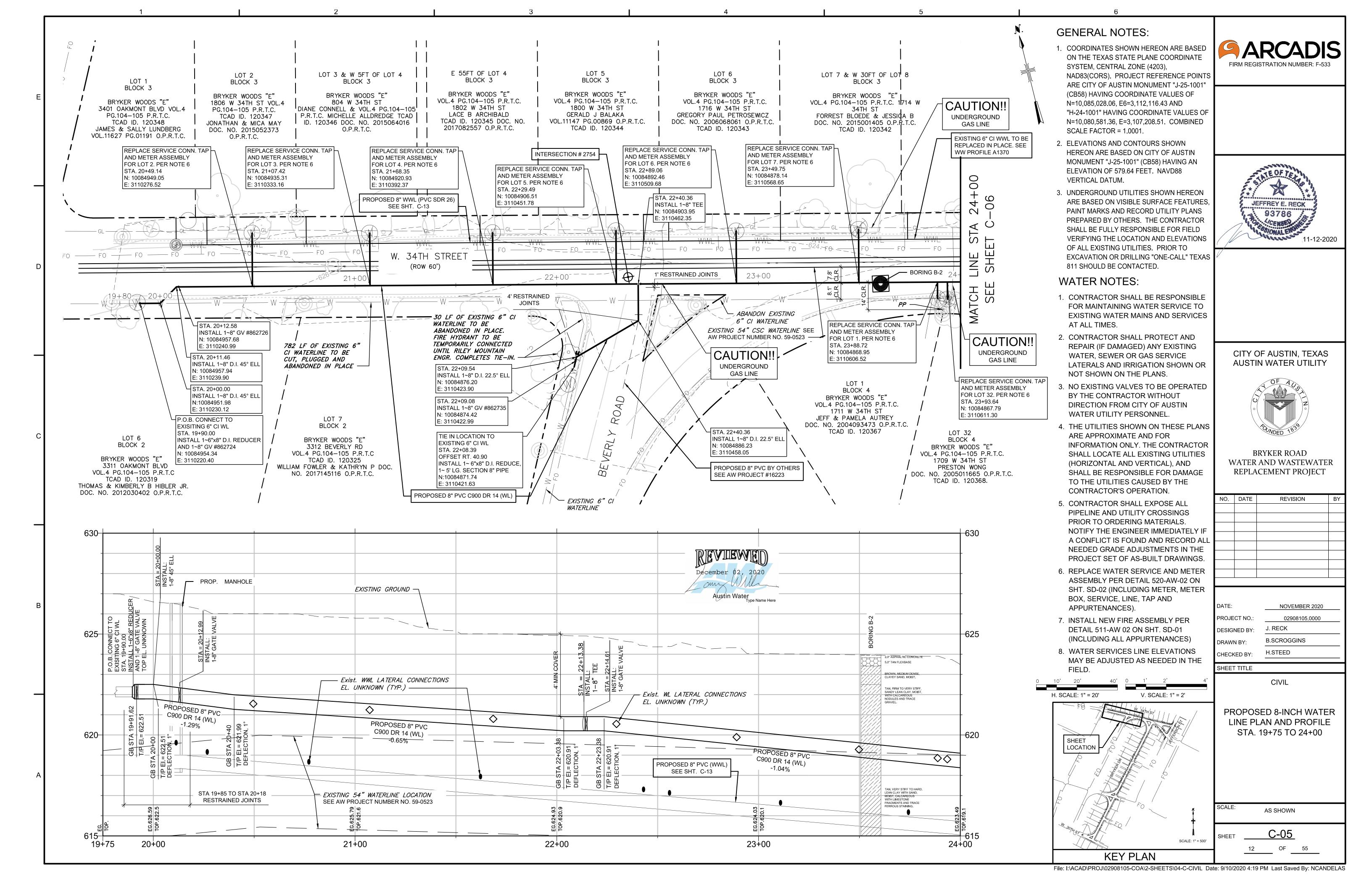


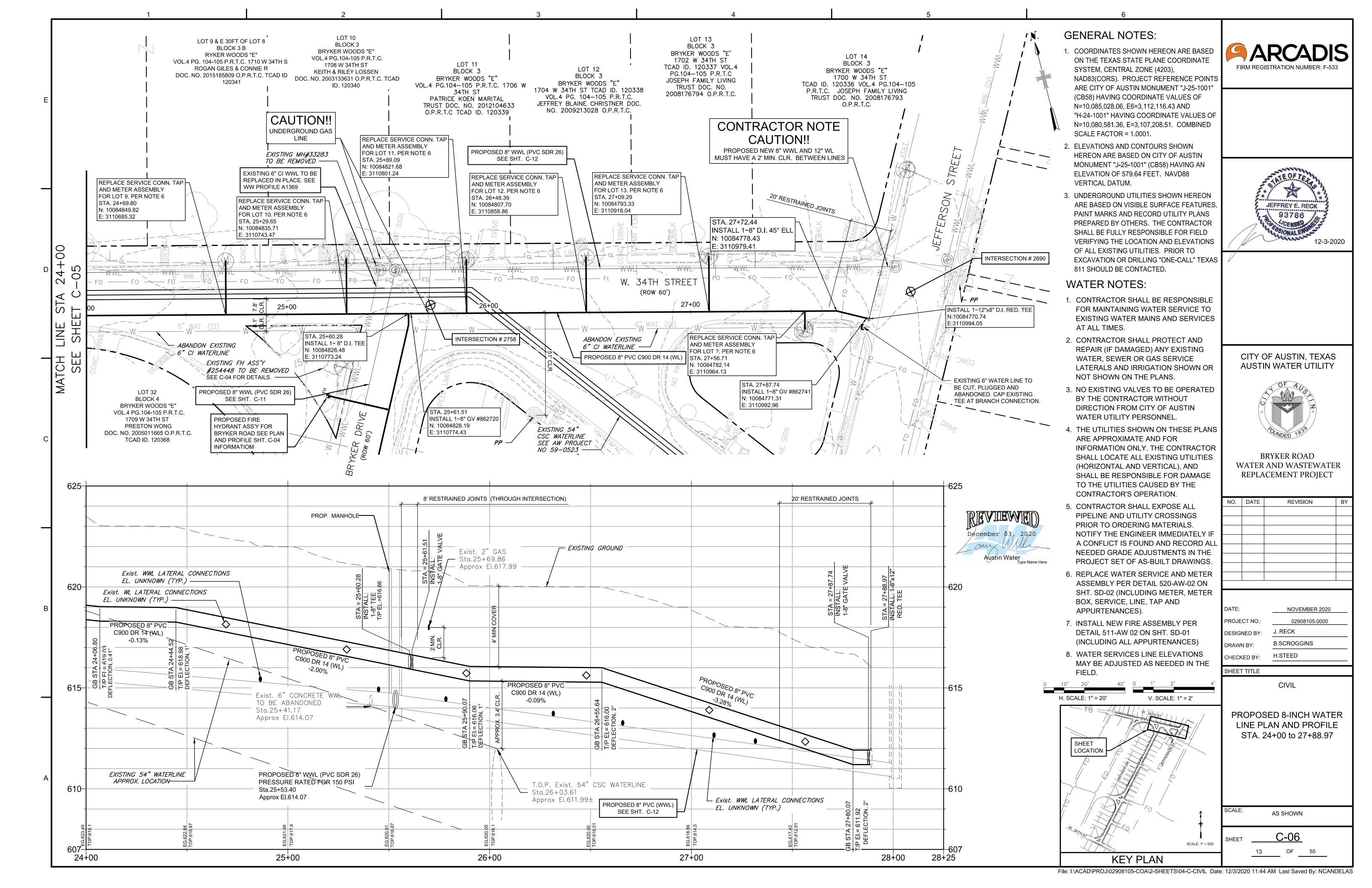


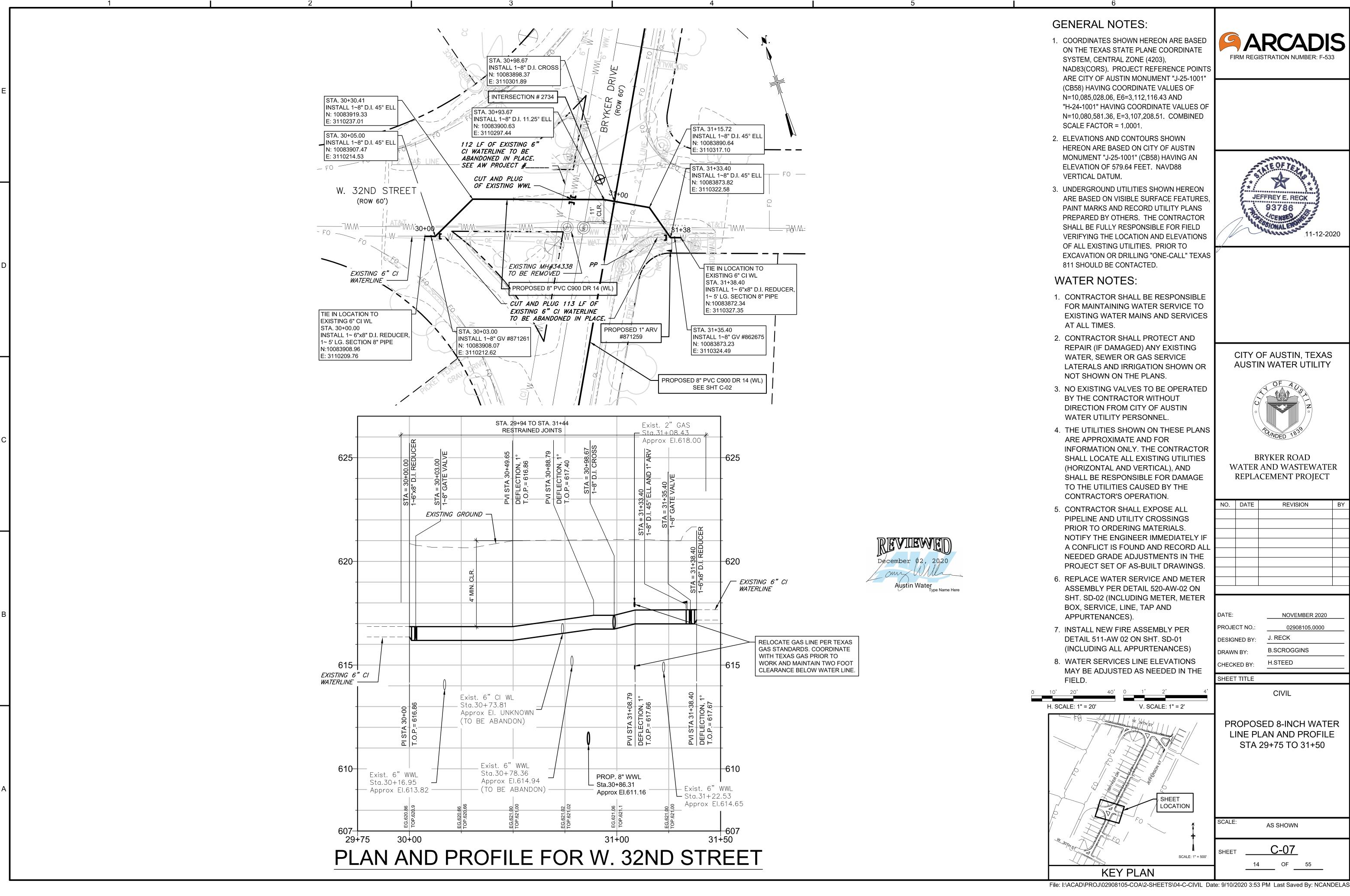


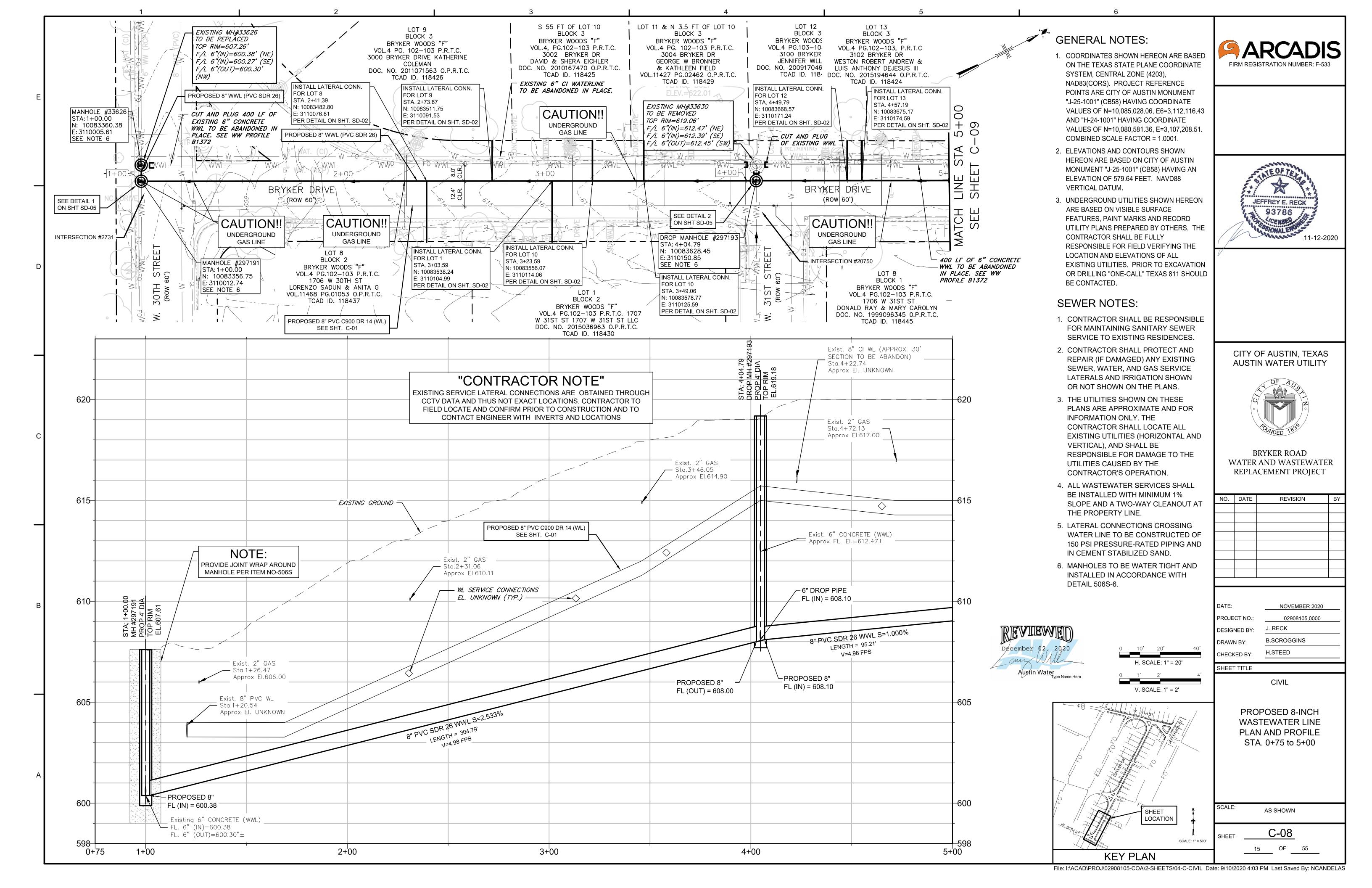


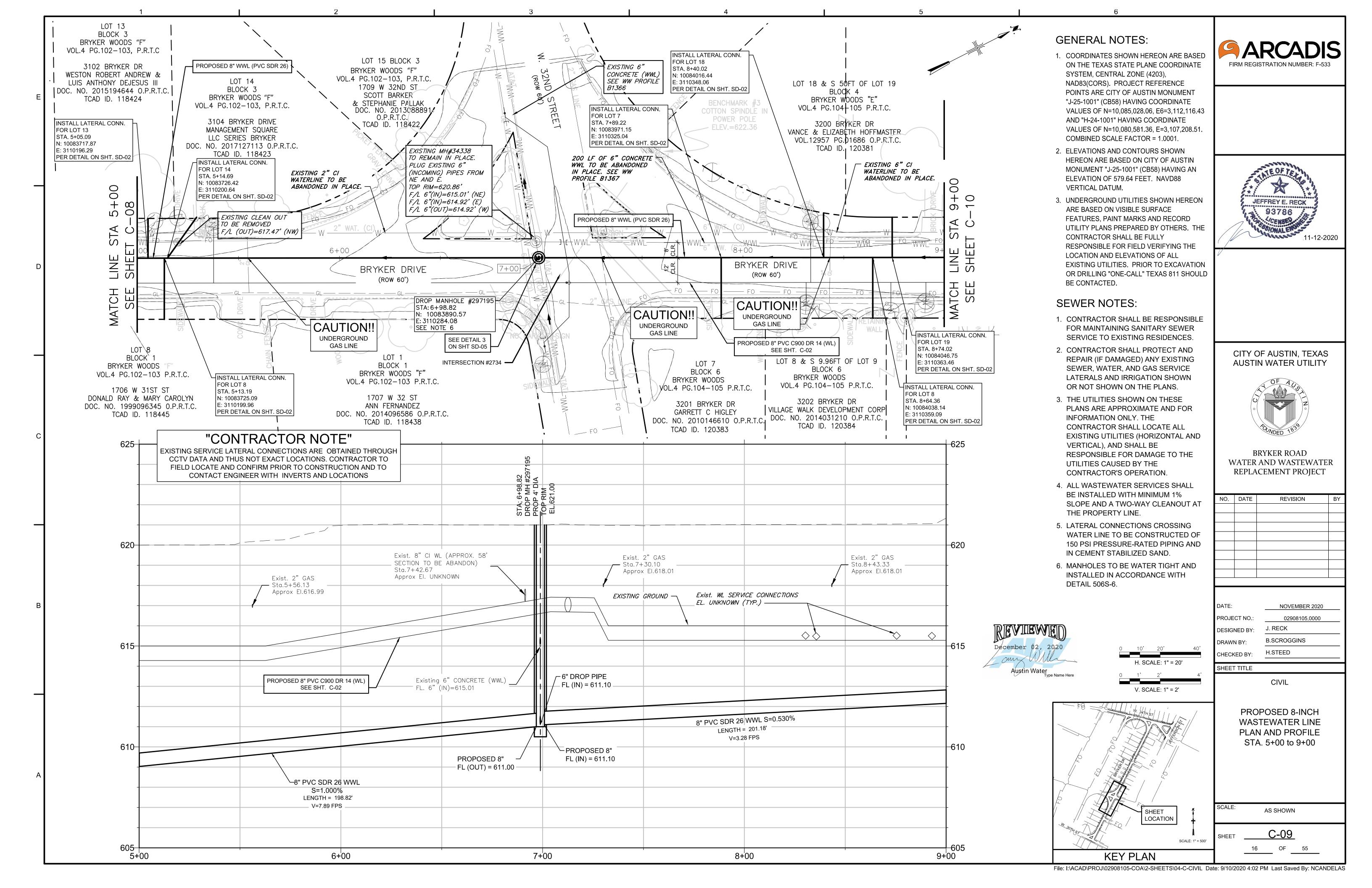


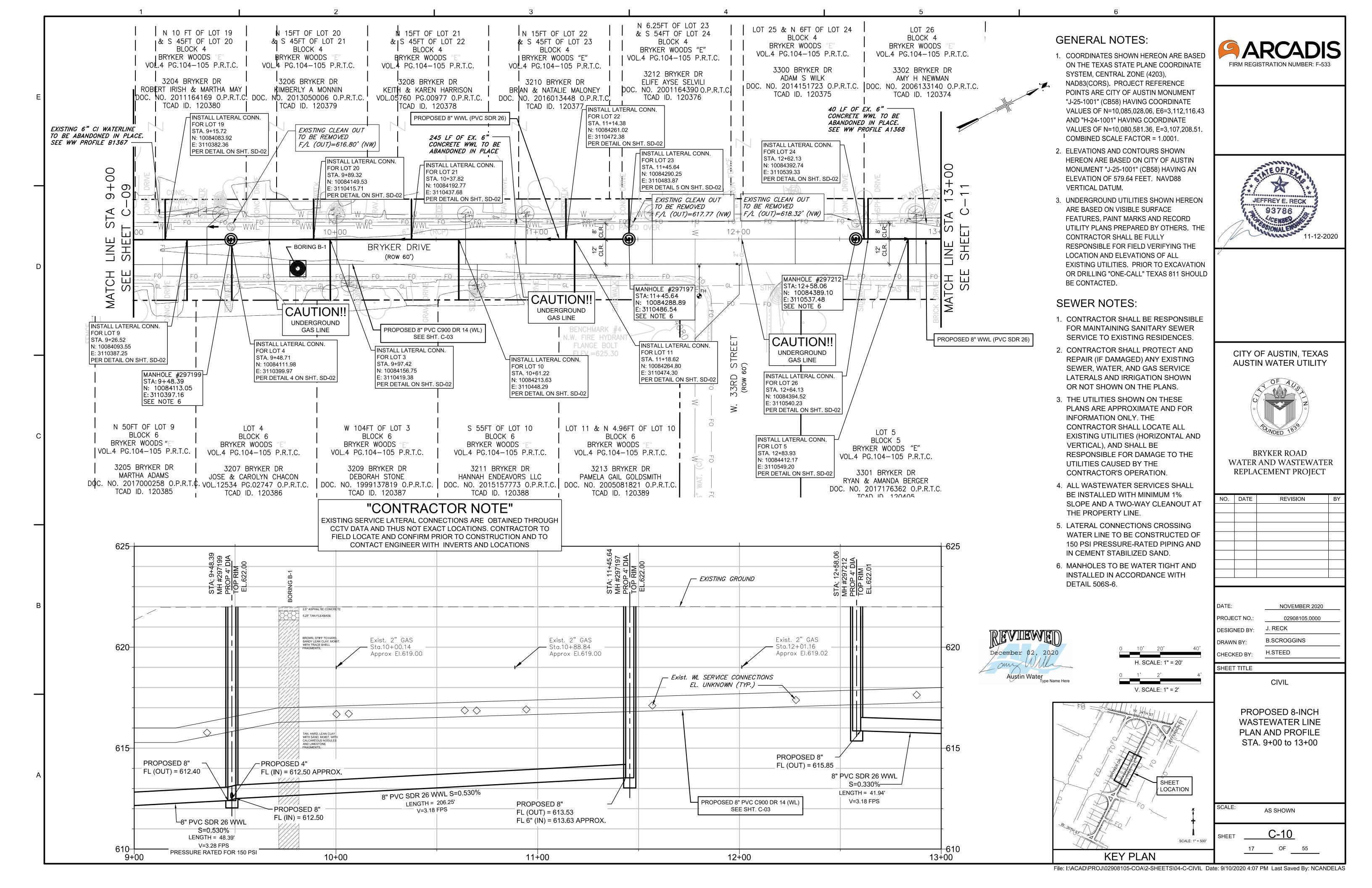


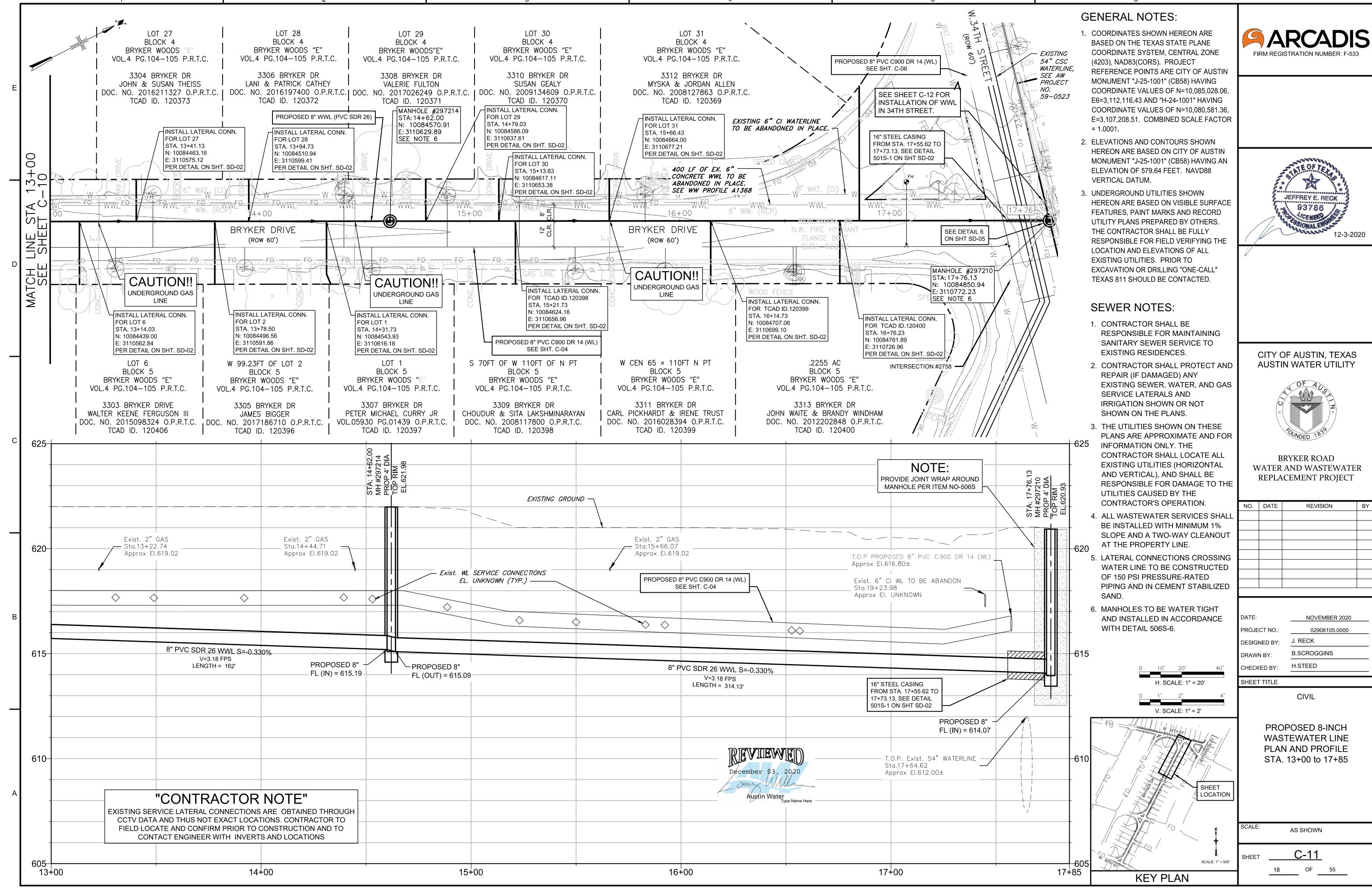


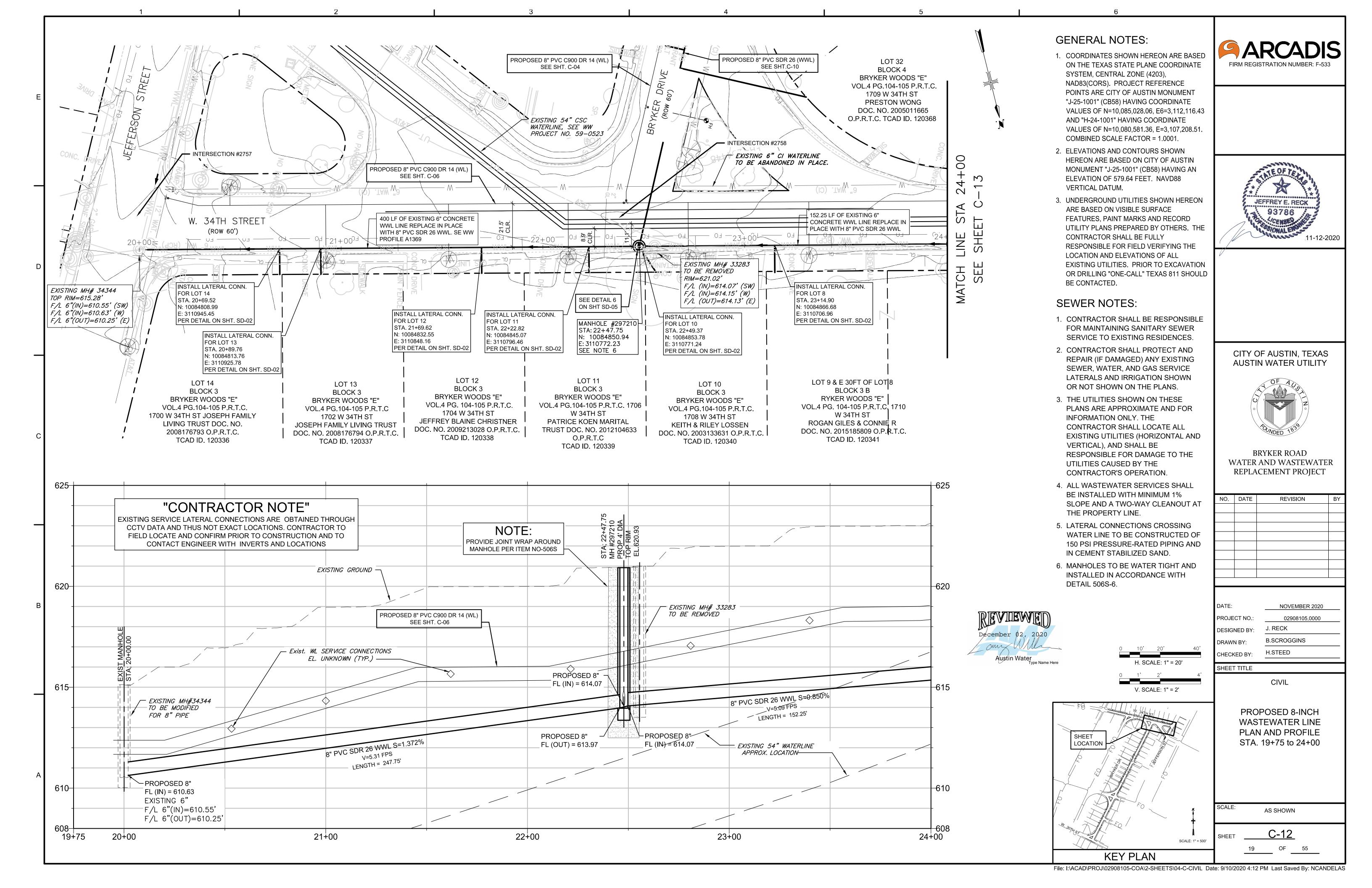


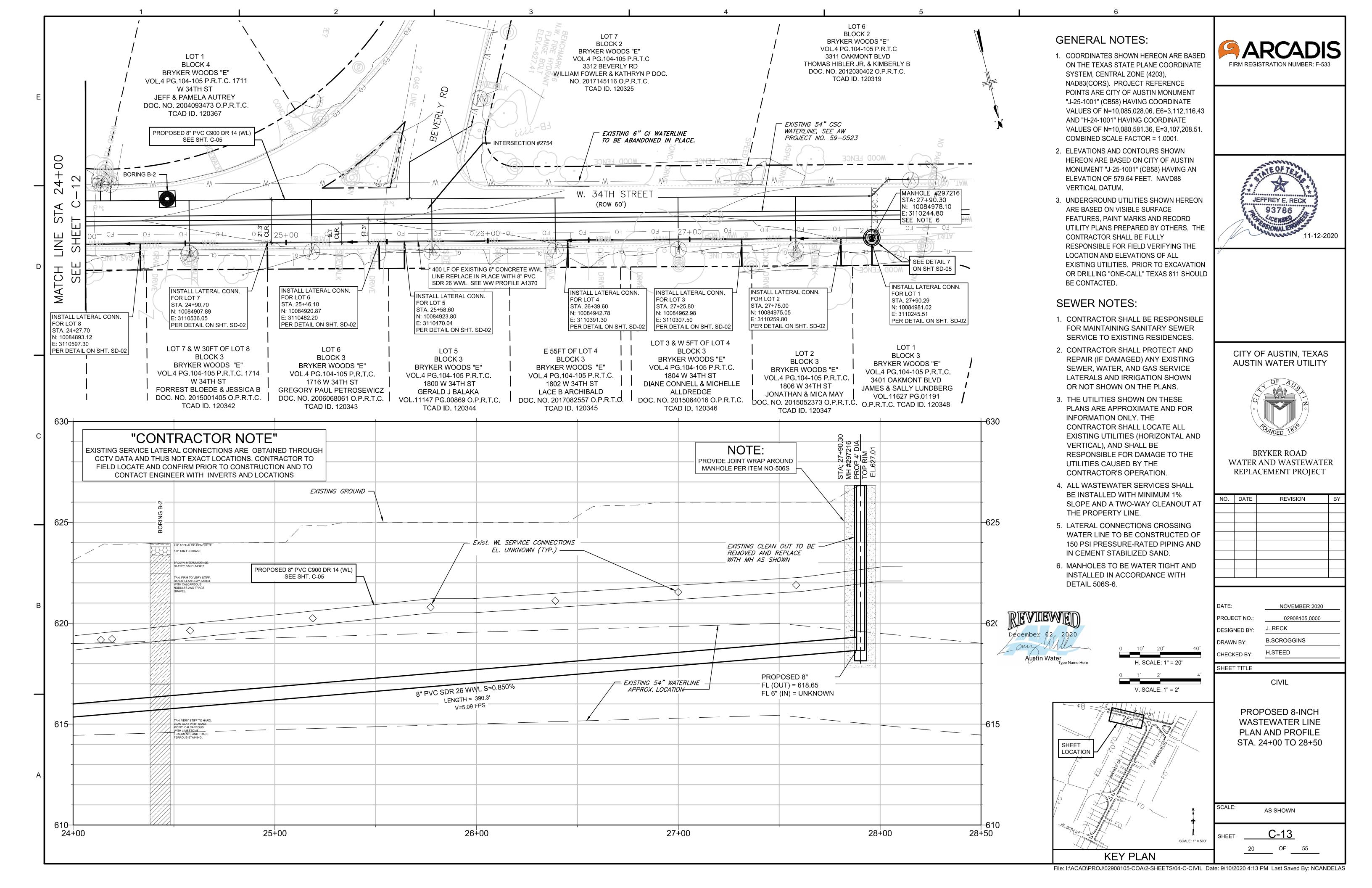












EROSION & SEDIMENT CONTROL AND TREE PROTECTION REQUIREMENTS [LDC 25-7-61,65,25-8-181,182,183,184]:

- 1. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5,1.]
- 2. ENVIRONMENTAL INSPECTOR HAS THE
 AUTHORITY TO ADD AND/OR MODIFY
 EROSION/SEDIMENTATION CONTROLS ON SITE
 TO KEEP PROJECT IN-COMPLIANCE WITH THE
 CITY OF AUSTIN RULES AND
 REGULATIONS.[LDC 25-8-183]
- 3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- 4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. [ECM 1.4.4.D.4]

CONSTRUCTION SPOILS NOTE:

ALL SPOILS ARE TO BE PLACED BACK IN TRENCH EVERY NIGHT; OR IF SPOILS ARE TO REMAIN OVERNIGHT, SPOILS MUST BE PLACED UPHILL SIDE OF TRENCH WITHIN LOC.

CONSTRUCTION STAGING & LAY DOWN AREA NOTES:

CONTRACTOR TO COORDINATE LOCATION OF STAGING AND LAYDOWN AREA.

TREE PROTECTION NOTES:

- 1. CHAIN LINK FENCE SHALL BE ERECTED PRIOR TO ANY CLEARING, GRUBBING OR SITE WORK OF ANY KIND. FENCING SHALL STAY ERECTED UNTIL FINAL LANDSCAPE OPERATIONS COMMENCE.
- 2. ANY PRUNING TO PROVIDE CLEARANCE TO PRESERVED TREES MUST BE APPROVED BY THE URBAN FORESTER AND THE PROJECT LANDSCAPE ARCHITECT.
- 3. DO NOT REMOVE ANY TREES OVER 1"
 CALIPER WITHIN THE TREE PROTECTION
 FENCING OUR OUTSIDE THE LIMIT OF
 CONSTRUCTION.
- 4. IF OBVIOUS DUST BUILD-UP FROM
 CONSTRUCTION ACTIVITY IS NOT REMOVED
 BY NATURAL RAINFALL, UTILIZE A WATER
 TRUCK TO WASH BUILD-UP FROM THE
 CANOPY. THE LANDSCAPE ARCHITECT OF
 UT URBAN FORESTER SHALL DETERMINE
 WHEN NECESSARY.
- 5. TREE ROOT CUTS SHALL BE MECHANICALLY CUT AT THE DIRECTION OF A CERTIFIED ARBORIST. CUTS SHALL BE CLEAN CUTS, WITHOUT PULLING OR TEARING.
- 6. CONTRACTOR SHALL PROVIDE DEEP ROOT FERTILIZATION FOR ALL TREES WITHIN THE PROJECT LIMITS. FERTILIZATION SHALL BE DONE THREE TIMES AT THE COMMENCEMENT OF CONSTRUCTION, AT 50% COMPLETION AND AT THE COMMENCEMENT OF LANDSCAPE INSTALLATION ACTIVITIES.
- 7. FERTILIZATION SHALL BE BY DEEP ROOT METHOD AT 2 TO 3 FOOT MATRIX SPACING DEPENDING ON AVAILABLE ROOT AREA. MATERIALS ARE TO BE SLOW RELEASE AT A 3-1-1 RATIO. FIRST TREATMENT BEFORE CONSTRUCTION THEN REPEAT TREATMENTS AT 6 MONTH INTERVALS.
- 8. ALL TREES IMPACTED BY CONSTRUCTION
 ARE TO BE TREATED BEFORE
 CONSTRUCTION BEGINS WITH SYSTEMIC
 INSECTICIDE AND FUNGICIDE.
- 9. ALL TREES IMPACTED BY CONSTRUCTION
 ARE TO BE SPRAYED TO CONTROL EARLY
 SPRING DEFOLIATING CATERPILLARS.
- 10. ALL TREES IMPACTED BY CONSTRUCTION
 ARE TO BE WATERED ONCE EVERY 7 TO 14
 DAYS DURING LATE SPRING, SUMMER AND
 EARLY FALL IN LIEU OF 1/2 INCH OF
 RAINFALL.
- 11.A LICENSED ARBORIST MUST INSPECT THE TREES ONCE A MONTH FOR HEALTH DURING CONSTRUCTION OF PROJECT. A REPORT MUST BE SUBMITTED BY THE ARBORIST TO THE GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT.
- 12. ALL CONSTRUCTION WITHIN THE ½ CRITICAL ROOT ZONE OF IMPACTED TREES NEEDS TO DONE WITH HAND TOOLS OR AIR SPADE. NO ROOTS OVER 1" SHOULD BE TRIMMED

GENERAL NOTES:

- 1. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD83(CORS). PROJECT REFERENCE POINTS ARE CITY OF AUSTIN MONUMENT "J-25-1001" (CB58) HAVING COORDINATE VALUES OF N=10,085,028.06, E6=3,112,116.43 AND "H-24-1001" HAVING COORDINATE VALUES OF N=10,080,581.36, E=3,107,208.51. COMBINED SCALE FACTOR = 1.0001.
- 2. ELEVATIONS AND CONTOURS SHOWN HEREON ARE BASED ON CITY OF AUSTIN MONUMENT "J-25-1001" (CB58) HAVING AN ELEVATION OF 579.64 FEET. NAVD88 VERTICAL DATUM.
- 3. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON VISIBLE SURFACE FEATURES, PAINT MARKS AND RECORD UTILITY PLANS PREPARED BY OTHERS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FIELD VERIFYING THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES. PRIOR TO EXCAVATION OR DRILLING "ONE-CALL" TEXAS 811 SHOULD BE CONTACTED.

WATER NOTES:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WATER SERVICE TO EXISTING WATER MAINS AND SERVICES AT ALL TIMES.
- 2. CONTRACTOR SHALL PROTECT AND REPAIR (IF DAMAGED) ANY EXISTING WATER, SEWER OR GAS SERVICE LATERALS AND IRRIGATION SHOWN OR NOT SHOWN ON THE PLANS.
- 3. NO EXISTING VALVES TO BE OPERATED BY THE CONTRACTOR WITHOUT DIRECTION FROM CITY OF AUSTIN WATER UTILITY PERSONNEL.
- 4. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES (HORIZONTAL AND VERTICAL), AND SHALL BE RESPONSIBLE FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.
- 5. CONTRACTOR SHALL EXPOSE ALL PIPELINE
 AND UTILITY CROSSINGS PRIOR TO ORDERING
 MATERIALS. NOTIFY THE ENGINEER
 IMMEDIATELY IF A CONFLICT IS FOUND AND
 RECORD ALL NEEDED GRADE ADJUSTMENTS IN
 THE PROJECT SET OF AS-BUILT DRAWINGS.

SEWER NOTES:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SANITARY SEWER SERVICE TO EXISTING RESIDENCES.
- 2. CONTRACTOR SHALL PROTECT AND REPAIR (IF DAMAGED) ANY EXISTING SEWER, WATER, AND GAS SERVICE LATERALS AND IRRIGATION SHOWN OR NOT SHOWN ON THE PLANS.
- 3. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES (HORIZONTAL AND VERTICAL), AND SHALL BE RESPONSIBLE FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION.





CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY
	NO.	NO. DATE	NO. DATE REVISION

COPYRIGHT: ARCADIS U.S., INC.

DATE: AUGUST 12 2020

PROJECT NO.: 02908105.0000

DESIGNED BY: MAM

DRAWN BY: NAS

CHECKED BY: MAM

LANDSCAPE ARCHITECTURE

SHEET TITLE

EROSION AND SEDIMENT CONTROL PLAN

SITE PLAN RELEASE Sheet 21 of 54

FILE NUMBER: ______EXPIRATION DATE: _____
CASE MANAGER: _____APPLICATION DATE: _____
APPROVED ADMINISTRATIVELY ON: _____APPROVED BY PLANNING COMMISSION ON: _____
APPROVED BY CITY COUNCIL ON: ______
Under Section _____of Chapter _____of the Austin City Code.

Signing For Director, Development Services Department

DATE OF RELEASE: _____ZONING: _____
Rev. 1 _____Correction 1 _____
Rev. 2 _____Correction 2 _____
Rev. 3 _____Correction 3 _____

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA. INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR

SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR

CODE COMPLIANCE BY CITY ENGINEERS.

SCALE: 1" = 100'-0"

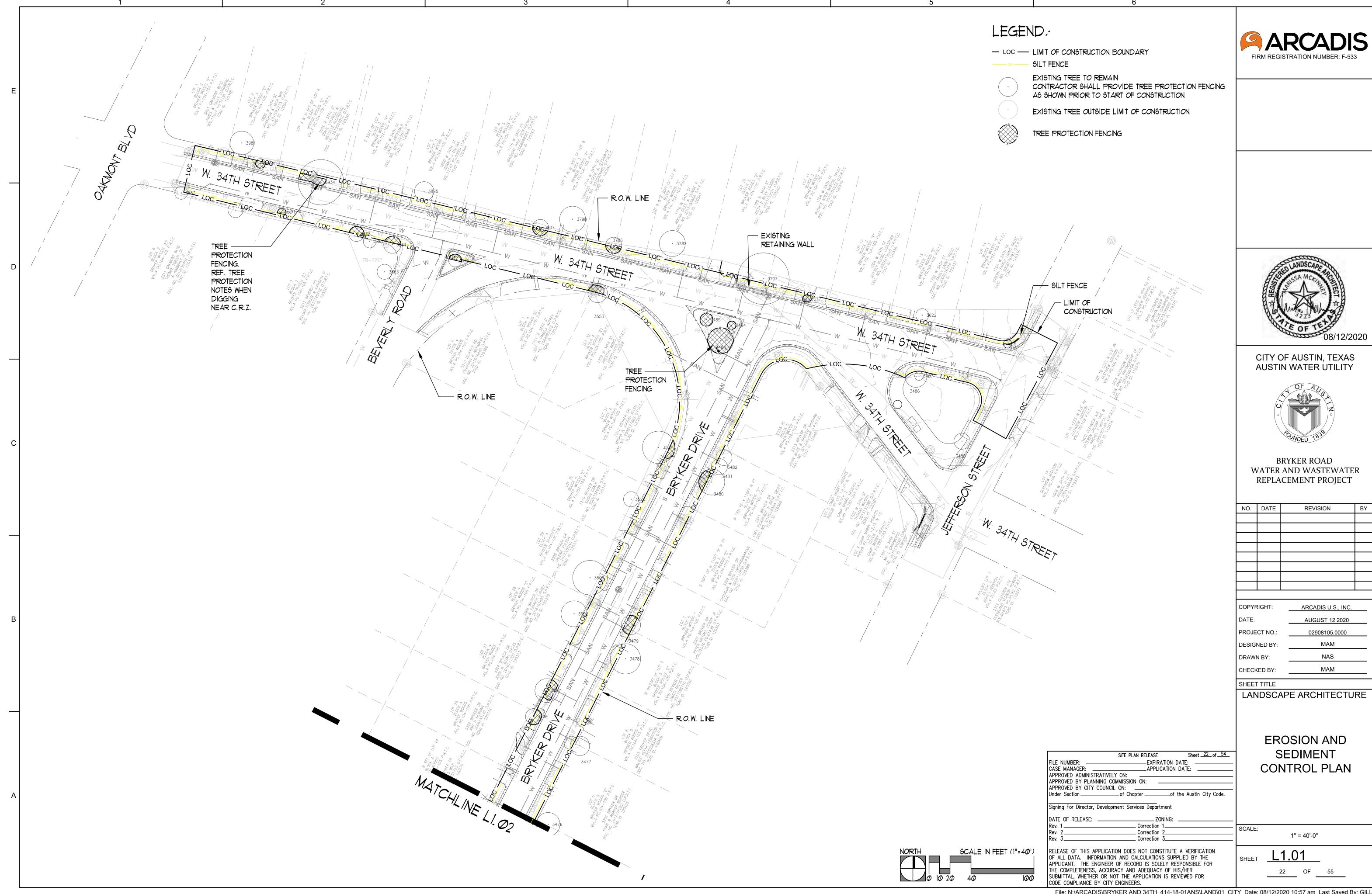
_____21 OF ____55

L1.00

TH SCALE IN FEET (1"=100")

Rev. 3 Correction 3

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIL OF ALL DATA. INFORMATION AND CALCULATIONS SUPPLIED BY APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIB THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER





APPENDIX P-1 - EROSION CONTROL NOTES

- 1. The contractor shall install erosion/sedimentation controls, tree/natural area protective fencing, and conduct "Pre-Construction" tree fertilization (if applicable) prior to any site preparation work (clearing, grubbing or excavation).
- 2. The placement of erosion/sedimentation controls shall be in accordance with the Environmental Criteria Manual and the approved Erosion and Sedimentation Control Plan. The COA ESC Plan shall be consulted and used as the basis for a TPDES required SWPPP. If a SWPPP is required, it shall be available for review by the City of Austin Environmental Inspector at all times during construction, including at the Pre-Construction meeting. The checklist below contains the basic elements that shall be reviewed for permit approval by COA EV Plan Reviewers as well as COA EV Inspectors.
- -- Plan sheets submitted to the City of Austin MUST show the following:
- ✓ Direction of flow during grading operations.
- √ Location, description, and calculations for off-site flow diversion structures.
- ✓ Areas that will not be disturbed; natural features to be preserved.
- √ Delineation of contributing drainage area to each proposed BMP (e.g., silt fence, sediment basin,
- √ Location and type of E&S BMPs for each phase of disturbance.
- √ Calculations for BMPs as required.
- √ Location and description of temporary stabilization measures.
- √ Location of on-site spoils, description of handling and disposal of borrow materials, and description of on-site permanent spoils disposal areas, including size, depth of fill and revegetation procedures.
- √ Describe sequence of construction as it pertains to ESC including the following elements:
- Installation sequence of controls (e.g. perimeter controls, then sediment basins, then temporary stabilization, then permanent, etc.)
- Project phasing if required (LOC greater than 25 acres)
- · Sequence of grading operations and notation of temporary stabilization measures to be used
- · Schedule for converting temporary basins to permanent WQ controls
- Schedule for removal of temporary controls
- Anticipated maintenance schedule for temporary controls
- -- Categorize each BMP under one of the following areas of BMP activity as described below:
- 2.1 Minimize disturbed area and protect natural features and soil
- 2.2 Control Stormwater flowing onto and through the project
- 2.3 Stabilize Soils
- 2.4 Protect Slopes
- 2.5 Protect Storm Drain Inlets
- 2.6 Establish Perimeter Controls and Sediment Barriers
- 2.7 Retain Sediment On-Site and Control Dewatering Practices
- 2.8 Establish Stabilized Construction Exits 2.9 Any Additional BMPs
- -- Note the location of each BMP on your site map(s).
- -- For any structural BMPs, you should provide design specifications and details and refer to them.
- -- For more information, see City of Austin Environmental Criteria Manual 1.4.
- 3. The Placement of tree/natural area protective fencing shall be in accordance with the City of Austin standard Notes for Tree and Natural Area Protection and the approved Grading/Tree and Natural Area
- 4. A pre-construction conference shall be held on-site with the contractor, design Engineer/permit applicant and Environmental Inspector after installation of the erosion/sedimentation controls, tree/natural area protection measures and "Pre-Construction" tree fertilization (if applicable) prior to beginning any site preparation work. The owner or owner's representative shall notify the Development Services Department, 512-974-2278 or by email at environmental.inspections@austintexas.gov, at least three days prior to the meeting date. COA approved ESC Plan and TPDES SWPPP (if required) should be reviewed by COA EV Inspector at this
- 5. Any major variation in materials or locations of controls or fences from those shown on the approved plans will require a revision and must be approved by the reviewing Engineer, Environmental Specialist or City Arborist as appropriate. Major revisions must be approved by authorized COA staff. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during the course of construction to correct control
- The contractor is required to provide a certified inspector that is either a licensed engineer (or person directly supervised by the licensed engineer) or Certified Professional in Erosion and Sediment Control (CPESC or CPESC - IT), Certified Erosion, Sediment and Stormwater - Inspector (CESSWI or CESSWI - IT) or Certified Inspector of Sedimentation and Erosion Controls (CISEC or CISEC - IT) certification to inspect the controls and fences at weekly or bi-weekly intervals and after one-half (½) inch or greater rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches or one-third (1/3) of the installed height of the control whichever is less.
- 7. Prior to final acceptance by the City, haul roads and waterway crossings constructed for temporary contractor access must be removed, accumulated sediment removed from the waterway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.
- 8. All work must stop if a void in the rock substrate is discovered which is; one square foot in total area; blows air from within the substrate and/or consistently receives water during any rain event. At this time it is the responsibility of the Project Manager to immediately contact a City of Austin
- Environmental Inspector for further investigation. 9. Temporary and Permanent Erosion Control: All disturbed areas shall be restored as noted below:
- A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees.
- Topsoil salvaged from the existing site is encouraged for use, but it should meet the standards set forth in 601S.

An owner/engineer may propose use of onsite salvaged topsoil which does not meet the criteria of Standard Specification 601S by providing a soil analysis and a written statement from a qualified professional in soils, landscape architecture, or agronomy indicating the onsite topsoil will provide an equivalent growth media and specifying what, if any, soil amendments are required.

Soil amendments shall be worked into the existing onsite topsoil with a disc or tiller to create a well-blended material.

The vegetative stabilization of areas disturbed by construction shall be as follows:

TEMPORARY VEGETATIVE STABILIZATION:

- 10.From September 15 to March 1, seeding shall be with or include a cool season cover crop: (Western Wheatgrass (Pascopyrum smithii) at 5.6 pounds per acre, Oats (Avena sativa) at 4.0 pounds per acre, Cereal Rye Grain (Secale cereale) at 45 pounds per acre. Contractor must ensure that any seed application requiring a cool season cover crop does not utilize annual ryegrass (Lolium multiflorum) or perennial ryegrass (Lolium perenne). Cool season cover crops are not permanent
- 11.From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre or a native plant seed mix conforming to Item 604S or 609S.
- A. Fertilizer shall be applied only if warranted by a soil test and shall conform to Item No. 606S, Fertilizer. Fertilization should not occur when rainfall is expected or during slow plant growth or dormancy. Chemical fertilizer may not be applied in the Critical Water Quality Zone.
- B. Hydromulch shall comply with Table 1, below.
- C. Temporary erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95% total coverage so that all areas of a site that rely on vegetation for temporary stabilization are uniformly vegetated, and provided there are no bare spots larger than 10 square feet.
- D. When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, and Standard Specification 604S or 609S.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no	70% or greater	0—3 months	Moderate slopes; from flat to 3:1	1,500 to 2,000 lbs per acre
mulch shall exceed 30% paper)	Wood/Straw 30% or less Paper or Natural Fibers			

PERMANENT VEGETATIVE STABILIZATION:

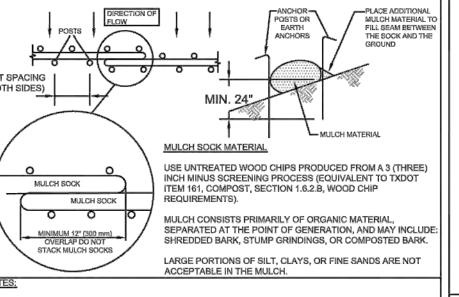
- 12. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (1/2) inch and the area shall be re-seeded in accordance with Table 2 below. Alternatively, the cool season cover crop can be mixed with Bermudagrass or native seed and installed together, understanding that germination of warm-season seed typically requires soil temperatures of 60 to 70 degrees.
- From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre with a purity of 95% and a minimum pure live seed (PLS) of 0.83. Bermuda grass is a warm season grass and is considered permanent erosion control. Permanent vegetative stabilization can also be accomplished with a native plant seed mix conforming to Item 604S or 609S.
- A. Fertilizer use shall follow the recommendation of a soil test. See Item 606S, Fertilizer. Applications of fertilizer (and pesticide) on City-owned and managed property requires the yearly submittal of a Pesticide and Fertilizer Application Record, along with a current copy of the applicator's license. For current copy of the record template contact the City of Austin's IPM Coordinator.
- B. Hydromulch shall comply with Table 2, below.
- C. Water the seeded areas immediately after installation to achieve germination and a healthy stand of plants that can ultimately survive without supplemental water. Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil. Maintain the seedbed in a moist condition favorable for plant growth. All watering shall comply with City Code Chapter 6-4 (Water Conservation), at rates and frequencies determined by a licensed irrigator or other qualified professional, and as allowed by the Austin Water Utility and current water restrictions and water conservation initiatives.
- D. Permanent erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95 percent for the non-native mix, and 95 percent coverage for the native mix so that all areas of a site that rely on vegetation for stability must be uniformly vegetated, and provided there are no bare spots larger than 10 square feet.
- E. When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, Items 604S and 609S.

Table 2: Hydromylabing for Domanant Vagetative Stabilization

			Typical		
Material	Description	Longevity	Applications	Application Rates	
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers				
10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	2,500 to 4,000 lbs per acre (see manufacturers recommendations)		
Fiber Reinforced Matrix (FRM) 65% Organi defibrated fiber 25% Reinforcing Fibers or les		Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3,000 to 4,500 lbs per acre (see manufacturers recommendations)	
	10% Tackifier				

The contractor shall not dispose of surplus excavated material from the site without notifying the Development Services Department at 512-974-2278 at least 48 hours prior with the location and a copy of the permit issued to receive the material.

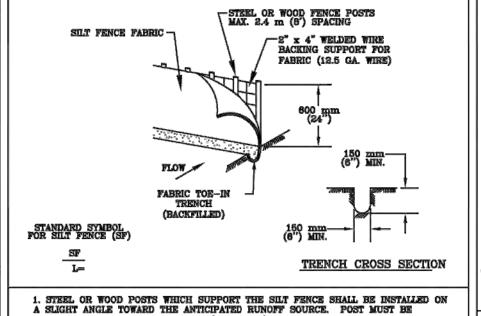
Source; Rule No. R161-15.13, 1-4-2016; Rule No. R161-17.03, 3-2-2017.



- STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 Inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 Inches) DEPTH, USE STEEL POSTS
- THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A
- MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE,
- SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT
- EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITER MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SIL

CITY OF AUGTIN	3.555 655 60.655
CONTRIBUTE TO ADDITIONAL SILTATION.	
SHALL BE DISPOSED OF ON AN APPROVE	D SITE AND IN SUCH A MANNER THAT WILL NOT
THE STATE OF THE S	

CITY OF AUSTIN WATERSHED PRITECTION DEPARTMENT	MULCH SOCK		
RECORD COPY SIGNED BY 08/24/2010 ADDPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	standard nd. 648S-1	



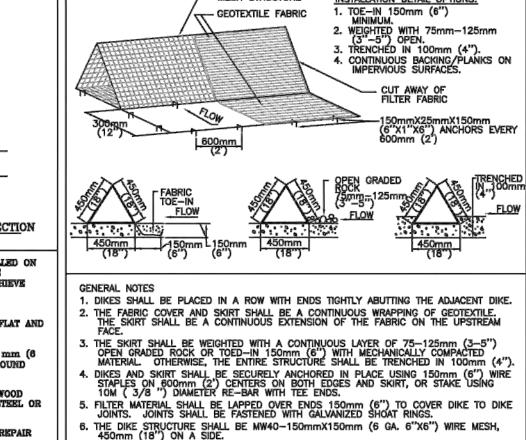
EMBEDDED A MINIMUM OF 300 rom (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL. 4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED. 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

(6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

			L
CITY OF AUSTIN ATERSHED PROTECTION DEPARTMENT	SILT FENCE		
CORD COPY SIGNED V MORGAN BYARS 09/01/201	THE ARCHITECT/ENGINEER ASSUMES EESFONSIBILITY FOR APPROPRIATE USE OF THE STANDARD.	STANDARD NO.	



- GEOTEXTILE FABRIC

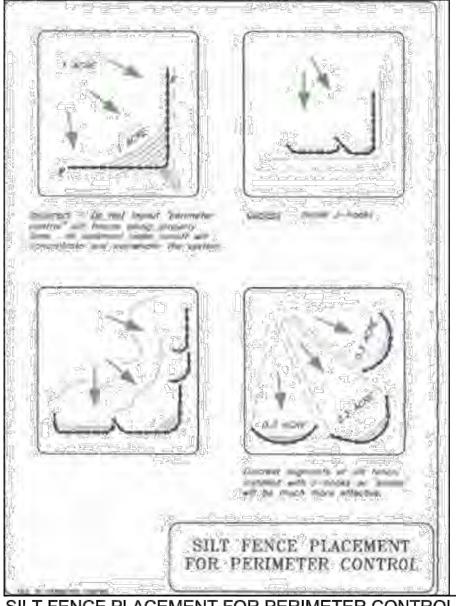
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:

7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR. 9. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

O9/01/2011 THE ARCHITECT/ENGINEER ASSUMES STANDARD NO. 6425-1 FINE STANDARD. STANDARD NO. 628S RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARD. THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARD. THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STIN DEPARTMENT	SILT FENCE		CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE	
	09/01/2011	RESPONSIBILITY FOR APPROPRIATE USE	6400 1			RESPONSIBILITY FOR APPROPRIATE USE	

STANDARD SYMBOL



ECM FIGURE 1.4.5.G.3 NOT TO SCALE

2. ANY SPOIL NOT INTENDED TO BE REUSED WILL BE HAULED TO AN APPROVED OR PERMITTED DISPOSAL

3. INSTALL TRIANGULAR SEDIMENT FILTER DIKE (DETAIL 628S) ACROSS FULL WIDTH OF TRAFFIC CLOSURE

AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB AND PLACED TO EFFECTIVELY

CATCH AND CONTAIN SEDIMENT LADEN RUNOFF FROM THE EXCAVATED AREA. FILTER DIKE TO FOLLOW

ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO

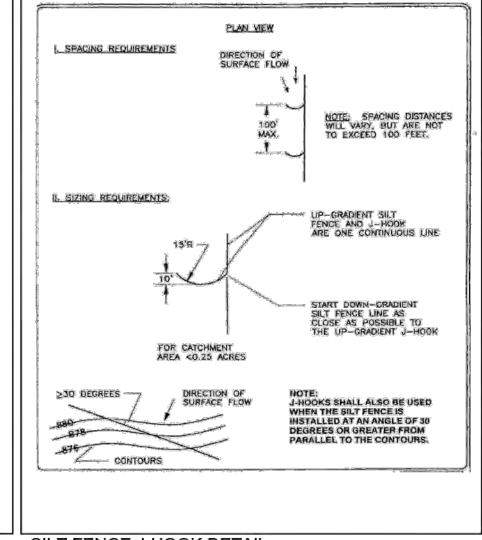
ADDITIONAL EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS FOR GENERAL PERMIT PROGRAM PROJECTS

SPOILS AND/OR

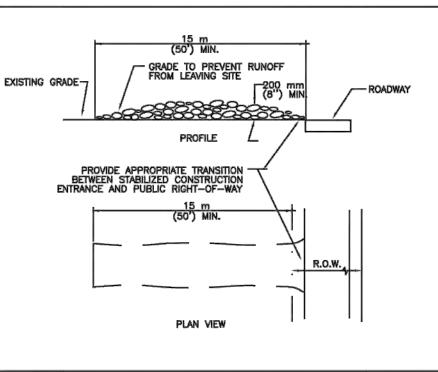
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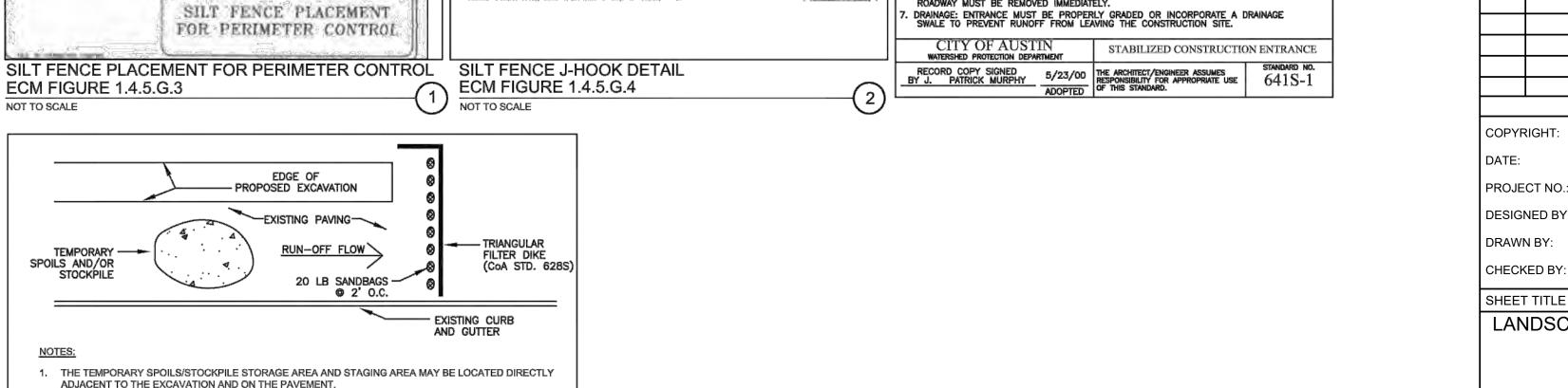
BARRICADES AND TRAFFIC HANDLING.



CITY OF AUSTIN



1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50'). 3. THICKNESS: NOT LESS THAN 200 mm (8"). . WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY WHEN WASHING IS DECLIDED IN SHALL PRIOR TO ENTRANCE UNTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIM ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. STABILIZED CONSTRUCTION ENTRANCE



FILE NUMBER:EXPIRATION DATE: CASE MANAGER:APPLICATION DATE: APPROVED ADMINISTRATIVELY ON: APPROVED BY PLANNING COMMISSION ON: APPROVED BY CITY COUNCIL ON: Under Sectionof Chapterof the Austin City Code. Signing For Director, Development Services Department DATE OF RELEASE:ZONING: Rev. 1Correction 1 Rev. 2Correction 2 Rev. 3Correction 3 RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA. INFORMATION AND CALCULATIONS SUPPLIED BY THE	CASE MANAGER: APPROVED ADMINISTRATIVEL`	APPLICATION	
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	Rev. 3	Correction 3	
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SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR

CODE COMPLIANCE BY CITY ENGINEERS.





CITY OF AUSTIN. TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY
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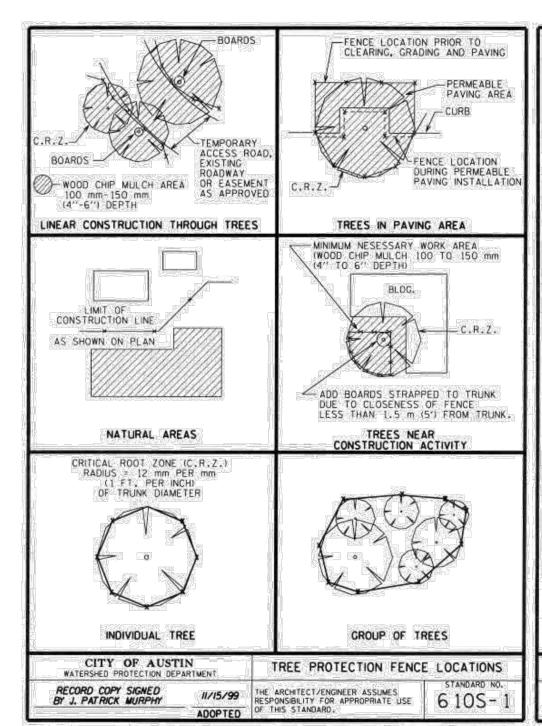
COPYRIGHT ARCADIS U.S., INC. DATE: AUGUST 12 2020 PROJECT NO 02908105.0000 MAM DESIGNED BY NAS DRAWN BY: MAM CHECKED BY

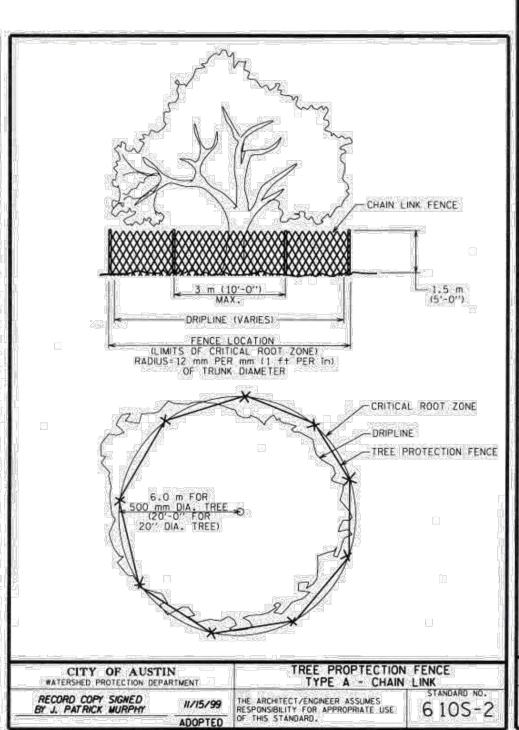
LANDSCAPE ARCHITECTURE

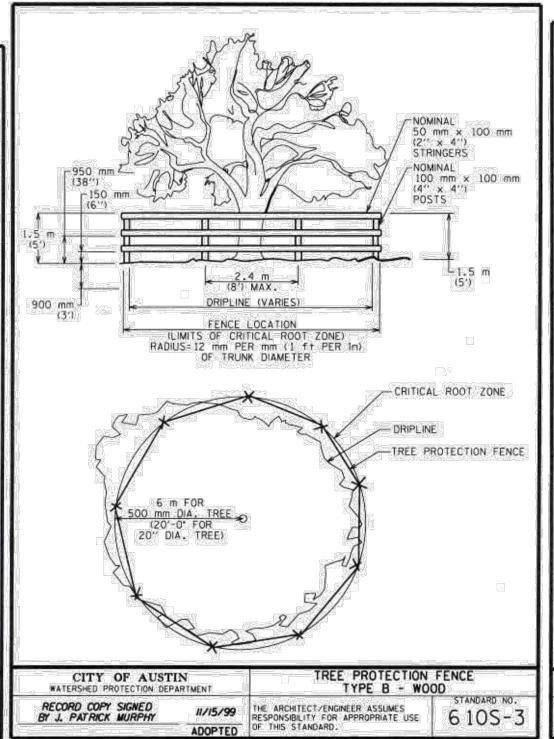
EROSION AND SEDIMENT CONTROL DETAILS

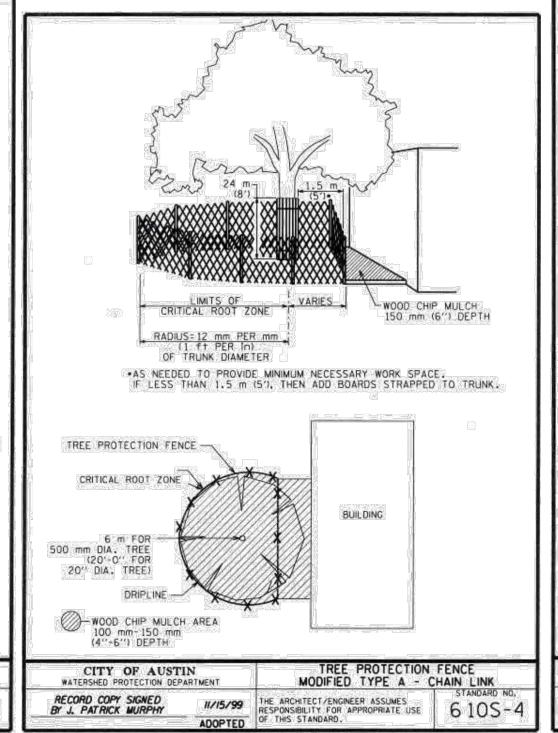
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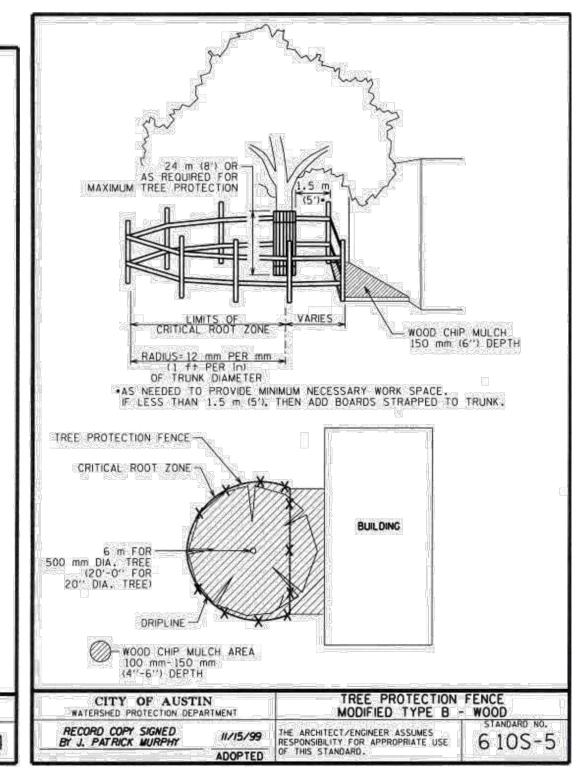
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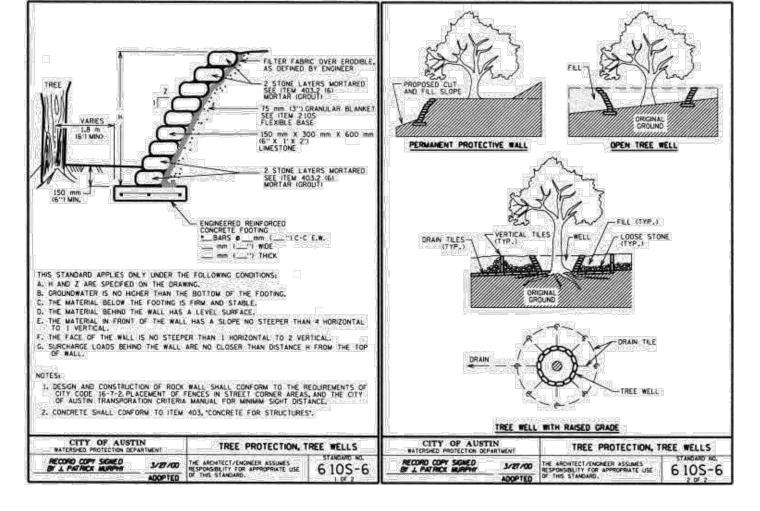
















CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY

COPYRIGHT: ARCADIS U.S., INC. AUGUST 12 2020 02908105.0000 PROJECT NO .: MAM **DESIGNED BY:** NAS DRAWN BY: MAM CHECKED BY:

SHEET TITLE

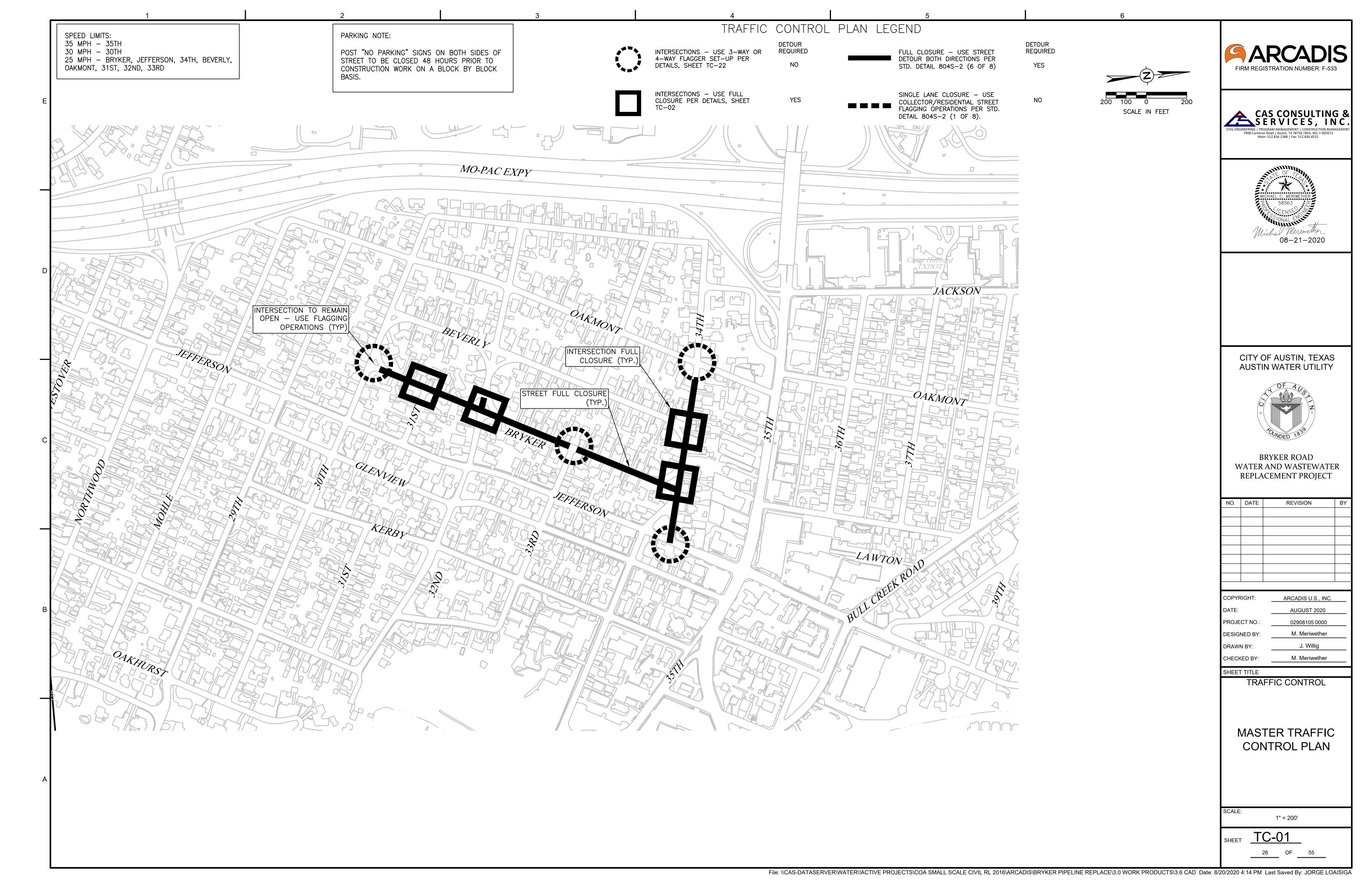
LANDSCAPE ARCHITECTURE

EROSION AND SEDIMENT **CONTROL DETAILS**

SCALE:

Sheet <u>25</u> of <u>54</u> SITE PLAN RELEASE FILE NUMBER: ___ __EXPIRATION DATE: _ CASE MANAGER: _____ _application date: _____ APPROVED ADMINISTRATIVELY ON: APPROVED BY PLANNING COMMISSION ON: APPROVED BY CITY COUNCIL ON: ____ Under Section _______of Chapter _____of the Austin City Code. Signing For Director, Development Services Department $_{\scriptscriptstyle -}$ Correction 1 $_{\scriptscriptstyle -}$ _ Correction 2_ _ Correction 3_ RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA. INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR

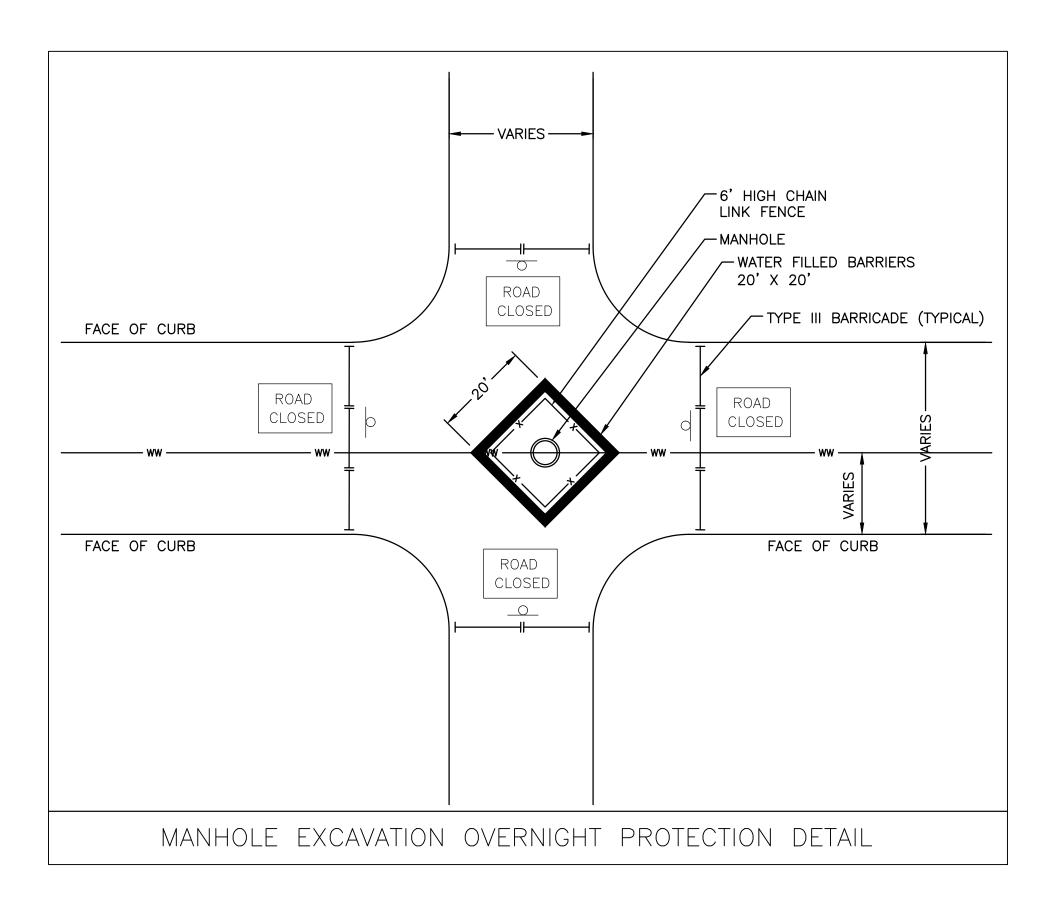
CODE COMPLIANCE BY CITY ENGINEERS.



STREET TRAFFIC CONTROL & WORK HOURS								
PROTECTION	STREET	STREET FROM	STREET TO	CLASS	SHEET	WATER, WASTEWATER & RESTORATION WORK HOURS	TRAFFIC CONTROL DETAILS - PIPELINE	STREET RESTORATION
	BRYKER	30TH	31ST	RES	TC-03	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	BRYKER	31ST	32ND	RES	TC-05	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	32ND	BRYKER	BEVERLY	RES	TC-07	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	BRYKER	32ND	33RD	RES	TC-08	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	BRYKER	33RD	34TH	RES	TC-09	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	34TH	OAKMONT	BEVERLY	RES	TC-10	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	34TH	BEVERLY	BRYKER	RES	TC-12	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	804S-2 (1 OF 8)
	34TH	BRYKER	JEFFERSON	RES	TC-14	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (6 OF 8) SEE SHEET TC-17	

INTERSECTION TRAFFIC CONTROL & WORK HOURS							
PROTECTION	STREET	CROSSING STREET	CLASS	SHEET	WATER, WASTEWATER & RESTORATION WORK HOURS	TRAFFIC CONTROL DETAILS — PIPELINE	STREET RESTORATION
	30TH	BRYKER	RES	NA	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8) W/ 3-WAY FLAGGER	804S-2 (1 OF 8)
	31ST	BRYKER	RES	TC-04	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8)	804S-2 (1 OF 8)
	32ND	BRYKER	RES	TC-06	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8)	804S-2 (1 OF 8)
	33RD	BRYKER	RES	NA	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8) W/ 3-WAY FLAGGER	804S-2 (1 OF 8)
	OAKMONT	34TH	RES	NA	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8) W/ 4-WAY FLAGGER	804S-2 (1 OF 8)
	BEVERLY	34TH	RES	TC-11	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8)	804S-2 (1 OF 8)
	BRYKER	34TH	RES	TC-13	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8)	804S-2 (1 OF 8)
	JEFFERSON	34TH	COL	TC-15	M-F: 9AM-4PM, SAT-SUN: 7AM-7PM (DAILY LANE CLOSURES)	804S-2 (1 OF 8)	804S-2 (1 OF 8)

NOTE: 24—HOUR CLOSURES ARE NOT PLANNED FOR THIS PROJECT. IF UNFORESEEN CIRCUMSTANCES REQUIRE IT, 24—HOUR CLOSURES ARE LIMITED TO MAXIMUM OF 3 DAYS. MANHOLE EXCAVATIONS LEFT OPEN OVER NIGHT SHALL BE PROTECTED WITH WATER—FILLED BARRIERS AND 6' HIGH CHAIN LINK FENCE THAT COMPLETELY SURROUND THE EXCAVATION. SEE DETAIL BELOW.



RIGHT OF WAY MANAGEMENT STANDARD NOTES FOR TRAFFIC CONTROL PLANS

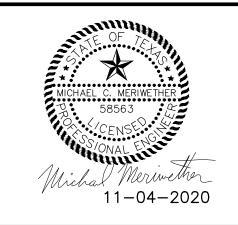
- 1. CONTRACTOR SHALL HAVE AN APPROVED RIGHT OF WAY (ROW) PERMIT AND TRAFFIC CONTROL PLAN (TCP) IN ELECTRONIC OR PAPER FORMATS ON SITE AT ALL TIMES WHEN WORKING IN THE ROW.
- 2. CONTRACTOR SHALL PROVIDE NOTIFICATION, AS PER THE LATEST MOBILITY GUIDELINES (MG-04).
- 3. UNLESS OTHERWISE APPROVED BY THE ROW DIVISION OF AUSTIN TRANSPORTATION DEPARTMENT (ATD): A.) ONLY ONE PHASE OF A TCP MAY BE SET AT ANY ONE TIME, AND B.) INITIAL SETUP AND PHASE CHANGES OF LONG—TERM WORK ZONES SHALL BE INSTALLED ON WEEKENDS.
- 4. ONCE TRAFFIC CONTROL HAS BEEN SET, THE AUTHORIZED AND COMPETENT REPRESENTATIVE FROM THE PROJECT TEAM/BARRICADE COMPANY WILL COMPLETE AND UPLOAD THE "CONTRACTOR'S SELF-INSPECTION CHECKLIST" FORM. SEE FORM AND DETAILED INSTRUCTIONS HERE: HTTPS://www.austintexas.gov/page/right-way-traffic-control
- 5. FOR ROW VIOLATIONS, AN INVESTIGATION FEE WILL BE ASSESSED FOR EACH OFFENSE UNTIL THE VIOLATION IS CORRECTED. SEE CURRENT FEE SCHEDULE HERE:

 HTTPS://www.austintexas.gov/sites/default/files/files/transportation/right_of_way/approved_row_fees.pdf
- 6. EXCAVATIONS SHALL BE BACKFILLED OR PLATED WHEN REQUIRED TO OPEN TO TRAFFIC. TEMPORARY PAVING SHALL BE DONE ACCORDING TO CITY OF AUSTIN (COA) STANDARD DETAIL 1100S-4 (FOR HMAC OR PCC PAVEMENTS). FOR EXCAVATIONS EXCEEDING A TRANSVERSE WIDTH OF 5 FEET, THE CONTRACTOR SHALL PROVIDE AN ENGINEERED PLATING PLAN FOR REVIEW BY THE CITY.
- 7. PEDESTRIAN ROUTES IN AND AROUND THE WORK ZONE, INCLUDING CONSTRUCTION ENTRANCES, TEMPORARY WALKING PATHS, BYPASSES, COVERED WALKWAYS, AND DETOURS, MUST REMAIN ACCESSIBLE AND ADA COMPLIANT THROUGHOUT THE PROJECT.
- 8. ALL APPLICABLE SAFEGUARDS SHALL BE IN PLACE PER CHAPTER 33 OF THE INTERNATIONAL BUILDING CODE, TO INCLUDE PEDESTRIAN PROTECTIONS PER SECTION 3306.
- 9. "CONSTRUCTION ENTRANCE AHEAD" SIGNS MUST BE PLACED AT ALL APPROACHES TO CONSTRUCTION ENTRANCES, UNLESS OTHERWISE SHOWN ON THE APPROVED TCP.
- 10. EXISTING DRIVEWAYS SHALL NOT BE CLOSED EXCEPT WITH ADVANCE NOTICE TO THE AFFECTED BUSINESSES/RESIDENCES AND APPROVAL FROM THE ROW DIVISION OF ATD.
- 11. ALL TRAFFIC CONTROL DEVICES INCLUDING PROTECTIVE BARRIERS MUST BE CRASHWORTHY AND INSTALLED ACCORDING TO THE MANUFACTURER'S GUIDELINES. CRASHWORTHINESS SHALL BE DETERMINED PER MASH TESTING REQUIREMENTS.
- 12. OVERNIGHT PROTECTION OF WORK ZONES AND STORAGE OF MATERIAL/EQUIPMENT SHALL BE ACCORDING TO COA STANDARD DETAIL 8045-4.
- 13. THE NAME OF THE BARRICADE CONTRACTOR SHALL BE SHOWN ON THE NON-REFLECTIVE SURFACE OF ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH COA STANDARD DETAIL 804S-5.
- 14. THE CITY'S TRAFFIC ENGINEER OR INSPECTOR MAY MAKE OR REQUIRE FIELD ADJUSTMENTS TO ADDRESS ISSUES OF SAFETY AND MOBILITY.
- 15. IF EXISTING CAPITAL METRO BUS STOPS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL OR DETOUR AREA, THE CONTRACTOR SHALL CONTACT CAPITAL METRO (LAURIE MICHEL AT 512-621-5713 (MOBILE)/ 512-369-7701 (WORK), LAURIE.MICHEL@CAPMETRO.ORG), OR ~SERVICE.IMPACTS@CAPMETRO.ORG TWO (2) WEEKS PRIOR TO SETTING UP THE TRAFFIC CONTROL DEVICES IN ORDER TO COORDINATE POTENTIAL BUS-STOP RELOCATION OR ANY OTHER RELATED ISSUES.
- 16. IF EXISTING SIGNALIZED INTERSECTIONS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL AREA, THE CONTRACTOR SHALL CONTACT ATD SIGNALS DIVISION AT (512) 974—4075, ONE WEEK PRIOR TO SETTING TRAFFIC CONTROL DEVICES.
- 17. THE RIGHT OF WAY SHALL BE RETURNED TO FULL USE AT THE END OF THE APPROVED WORK HOURS.
- 18. CONTRACTORS SHALL ADHERE TO ALL ROW SPECIAL EVENT ACTIVITY RESTRICTIONS, AS PER THE LATEST MOBILITY GUIDELINES (MG-08).
- 19. PROJECTS THAT ARE ROUTED THROUGH THE DAPCZ PROCESS ARE REQUIRED TO COORDINATE WITH THE OFFICE OF SPECIAL EVENTS (512-974-1000 OR TRANSPORTATIONSPECIALEVENTS@AUSTINTEXAS.GOV), IN CONJUNCTION WITH THE ROW DIVISION OF ATD. VISIT CITY STAGE FOR SCHEDULED EVENTS FOR ALL OF AUSTIN.
- 20. PURSUANT TO CITY CODE 9-2-3, ROW WORK MUST NOT MAKE NOISE AUDIBLE TO AN ADJACENT BUSINESS OR RESIDENCE BETWEEN 10:30PM AND 7:00AM OR OPERATE A MACHINE THAT SEPARATES, GATHERS, GRADES, LOADS, OR UNLOADS SAND, ROCK, OR GRAVEL WITHIN 600 FEET OF A RESIDENCE, CHURCH, HOSPITAL, HOTEL, OR MOTEL BETWEEN 7:00PM AND 6:00AM, EXCEPT FOR INSTALLATION OF CONCRETE AUTHORIZED BY A SEPARATE NON-PEAK HOUR CONCRETE POUR PERMIT ISSUED UNDER CITY CODE SECTION 9-2-21.

REVISED 8/25/20







CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY

COPYRIGHT: ARCADIS U.S., INC.

DATE: AUGUST 2020

PROJECT NO.: 02908105.0000

DESIGNED BY: M. Meriwether

DRAWN BY: J. Willig

CHECKED BY: M. Meriwether

SHEET TITLE

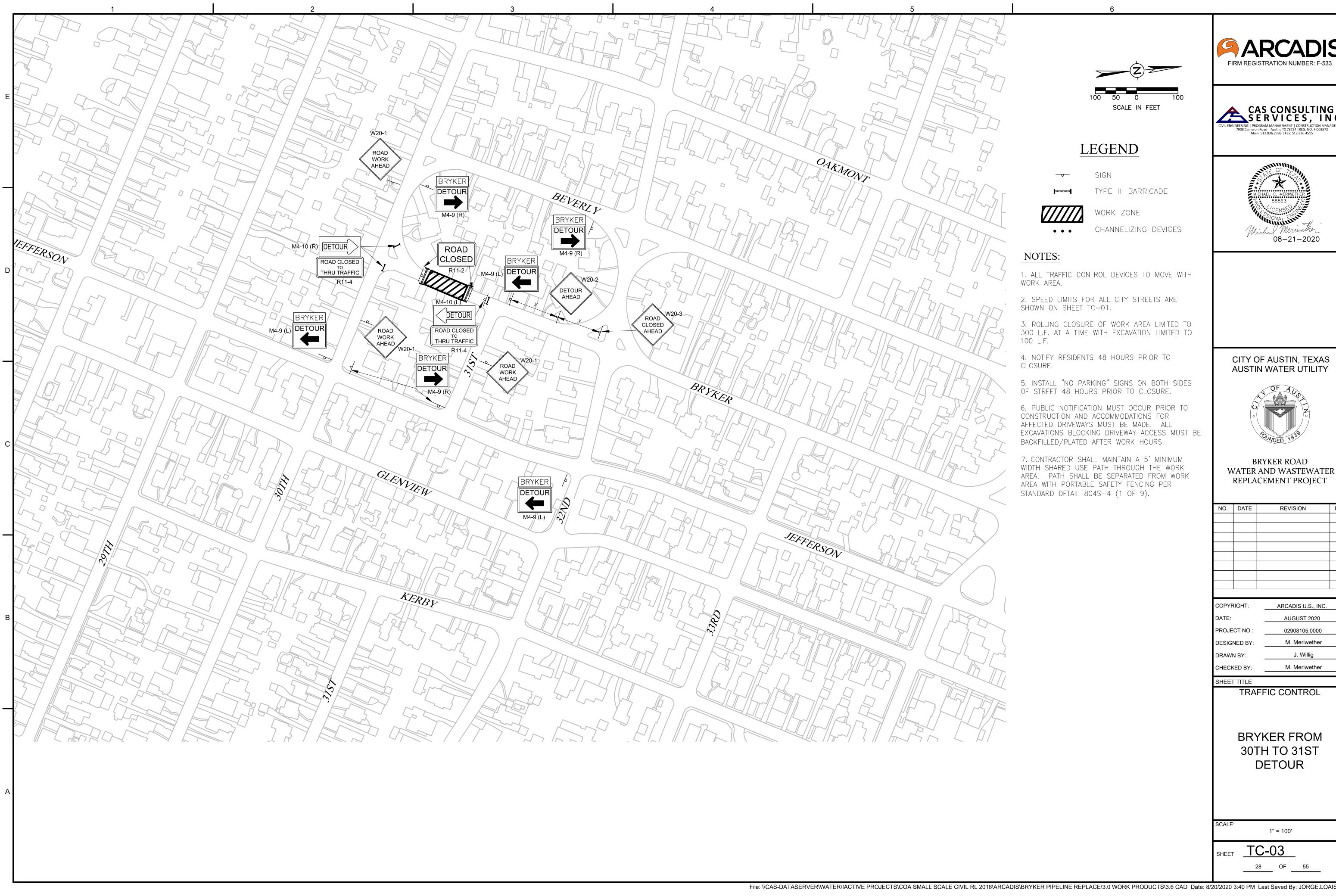
TRAFFIC CONTROL

TRAFFIC CONTROL NOTES

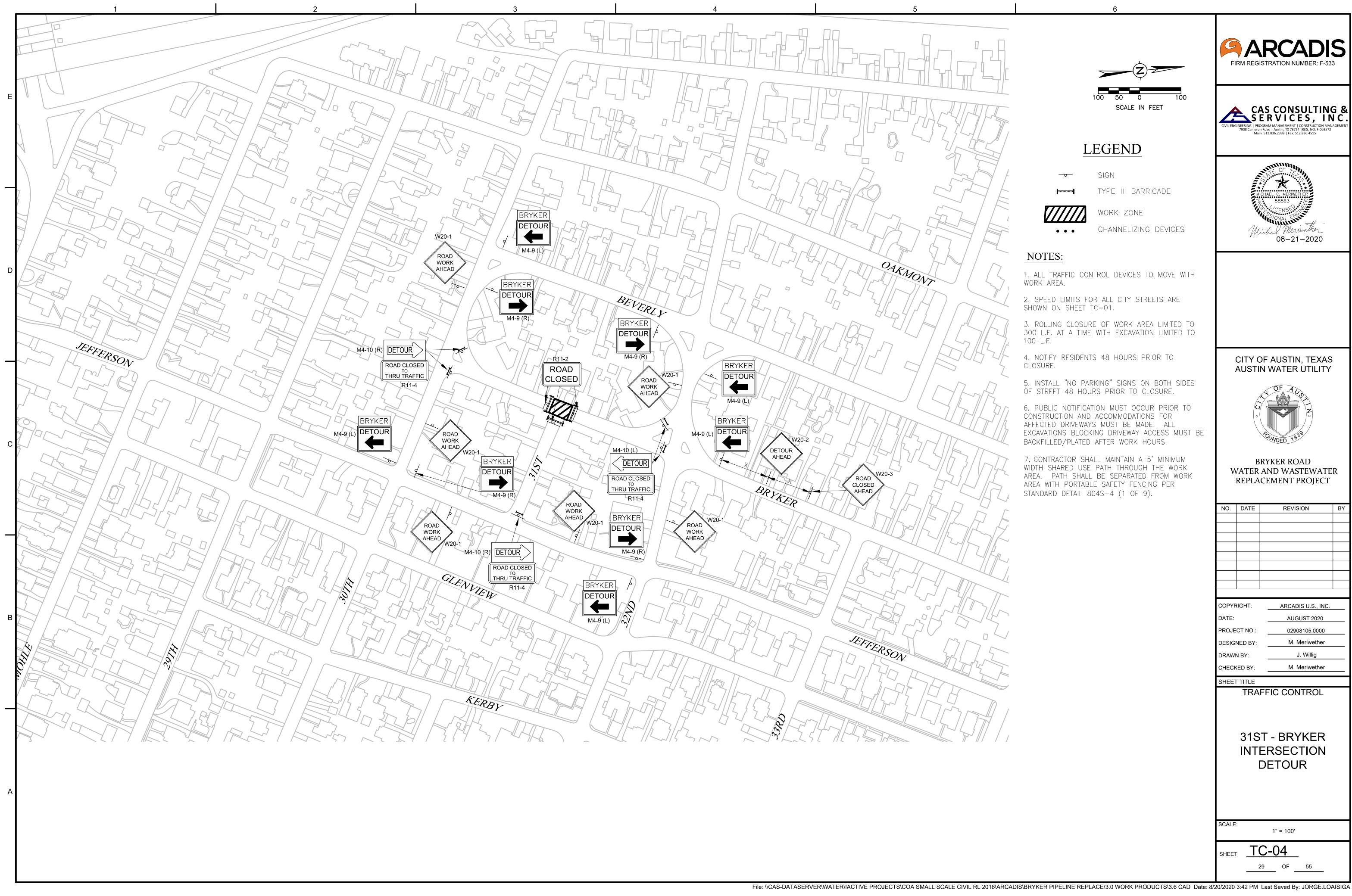
SCALE: AS SHOWN

SHEET <u>TC-02</u>

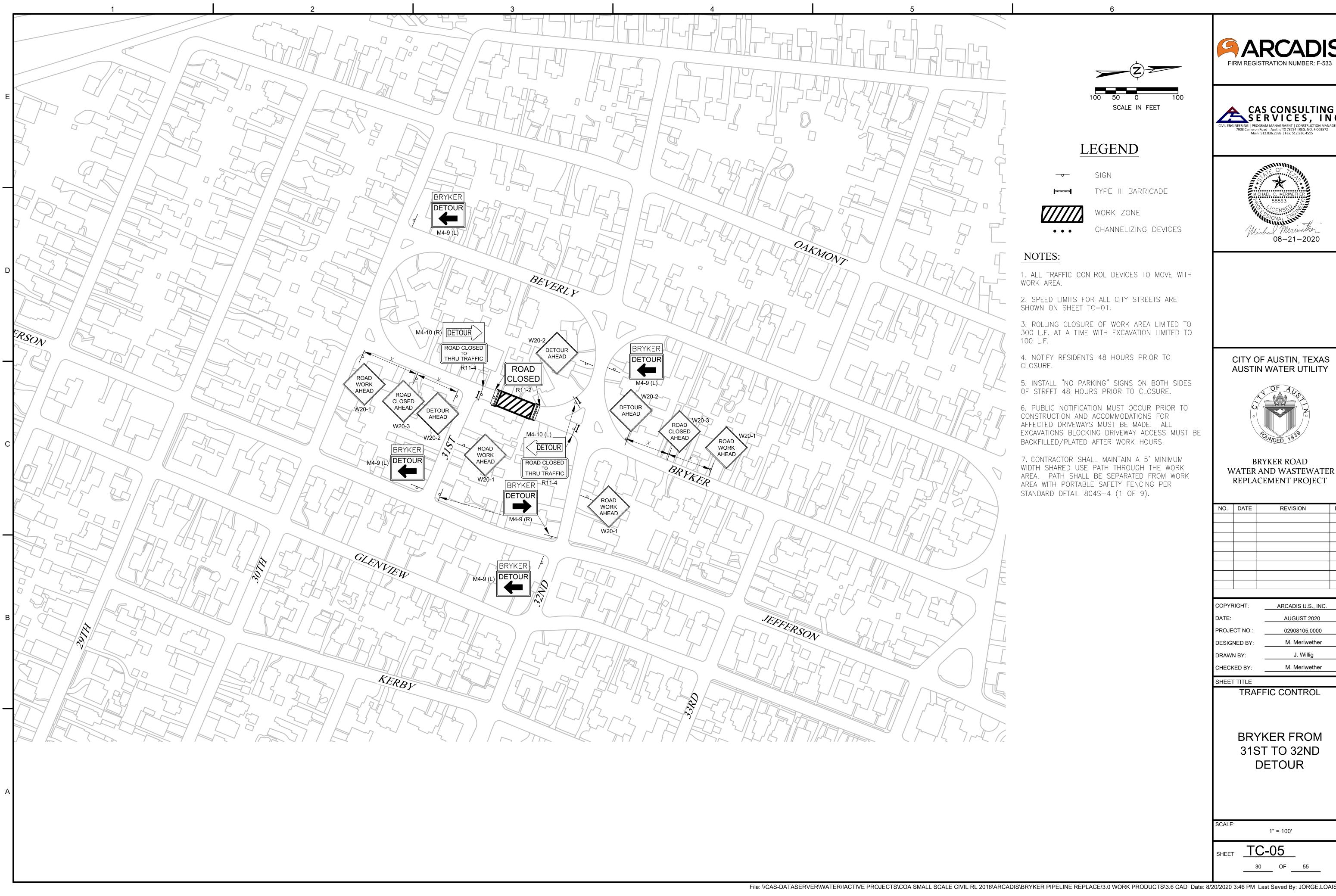
27 OF 55



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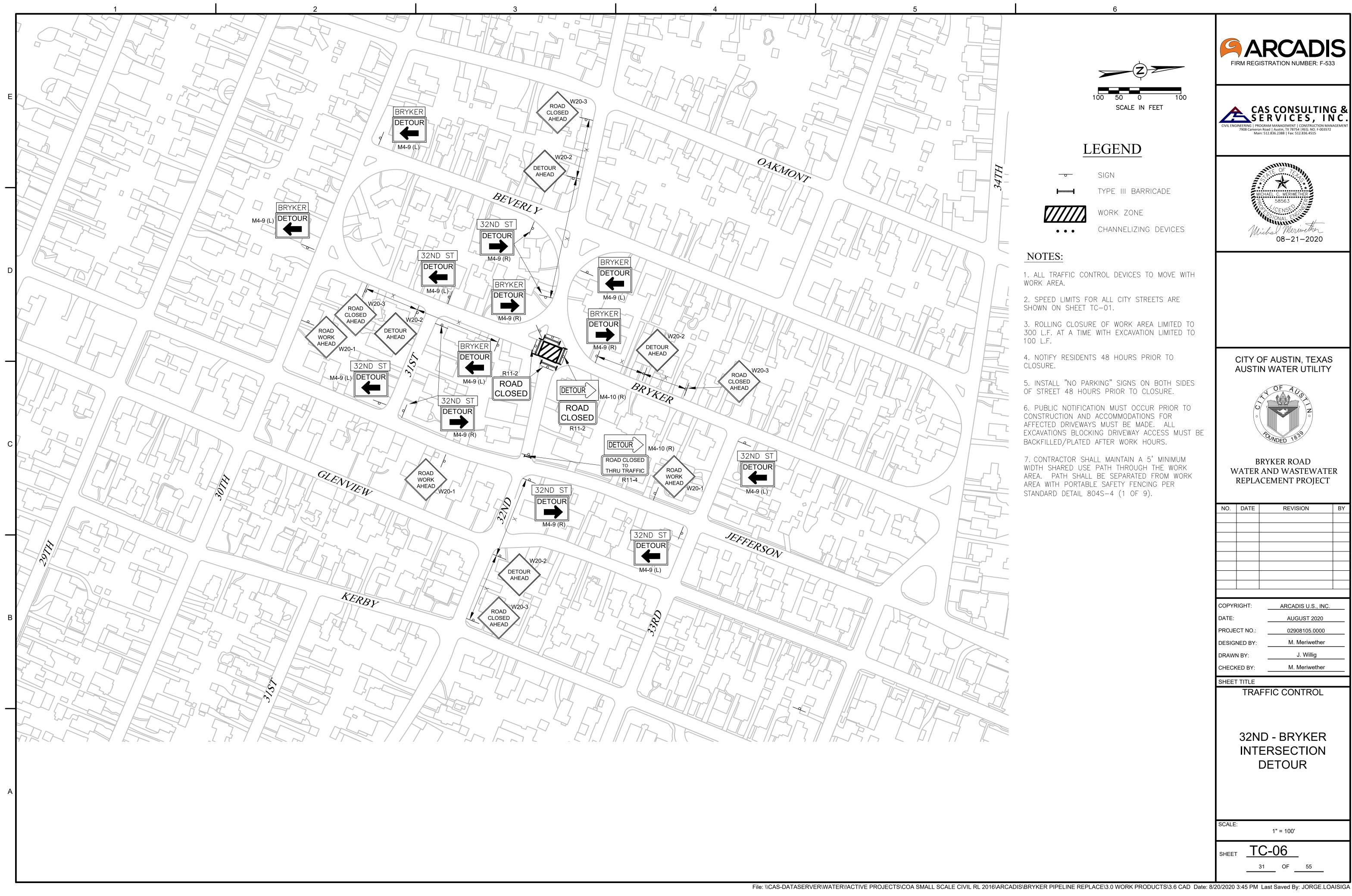
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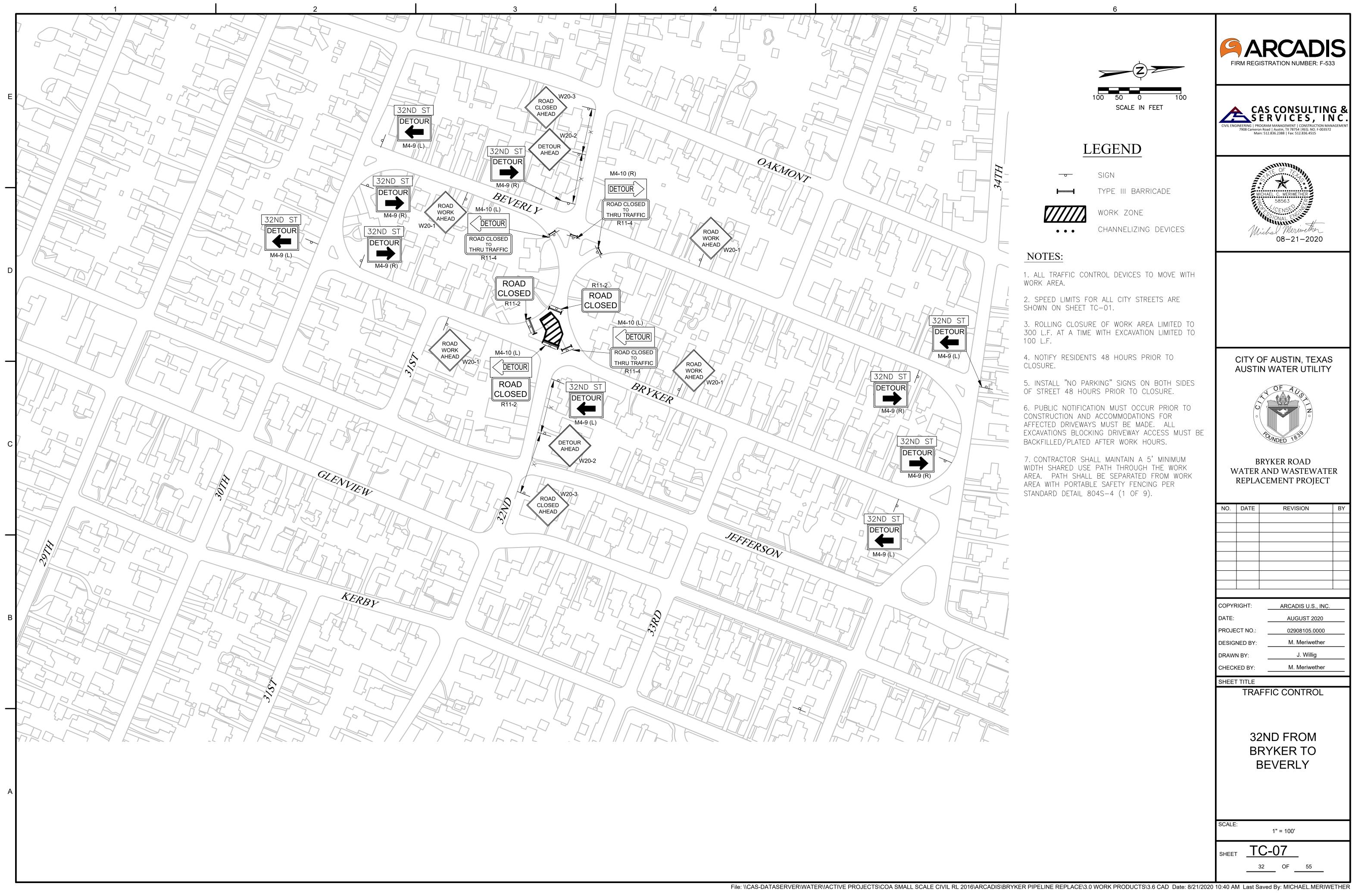
CAS CONSULTING & SERVICES, INC.

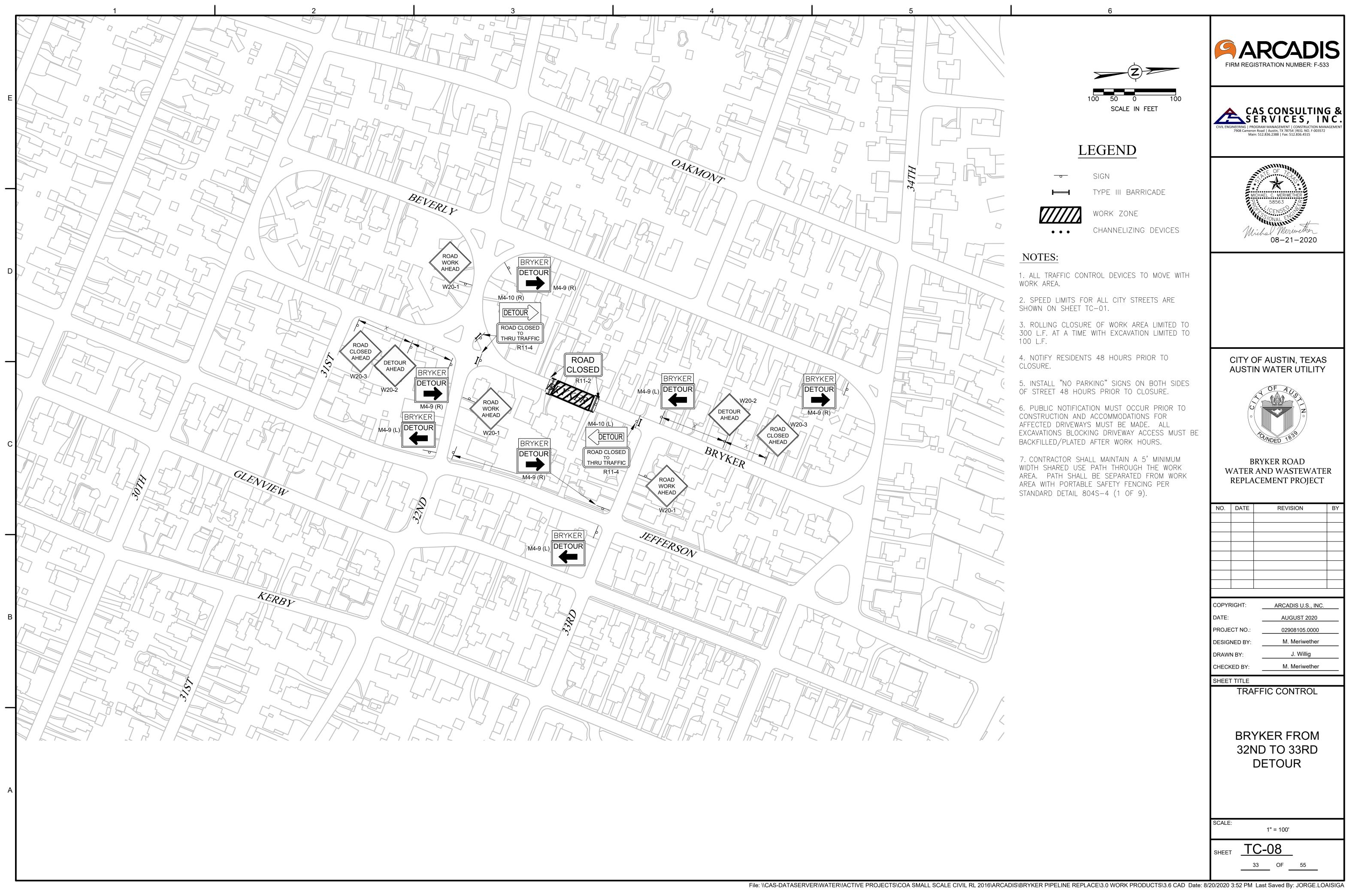
CITY OF AUSTIN, TEXAS

NO.	DATE	REVISION	BY
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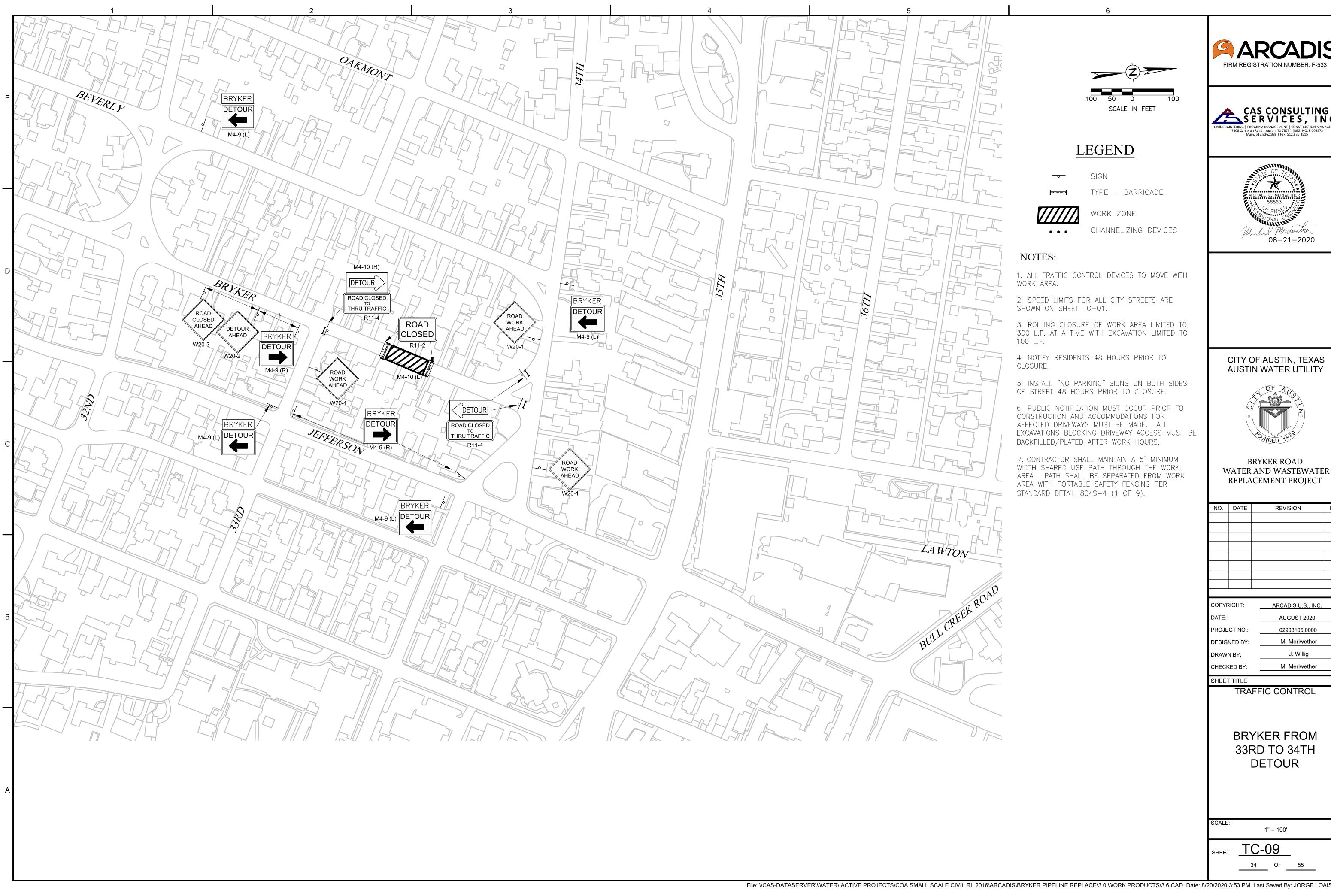


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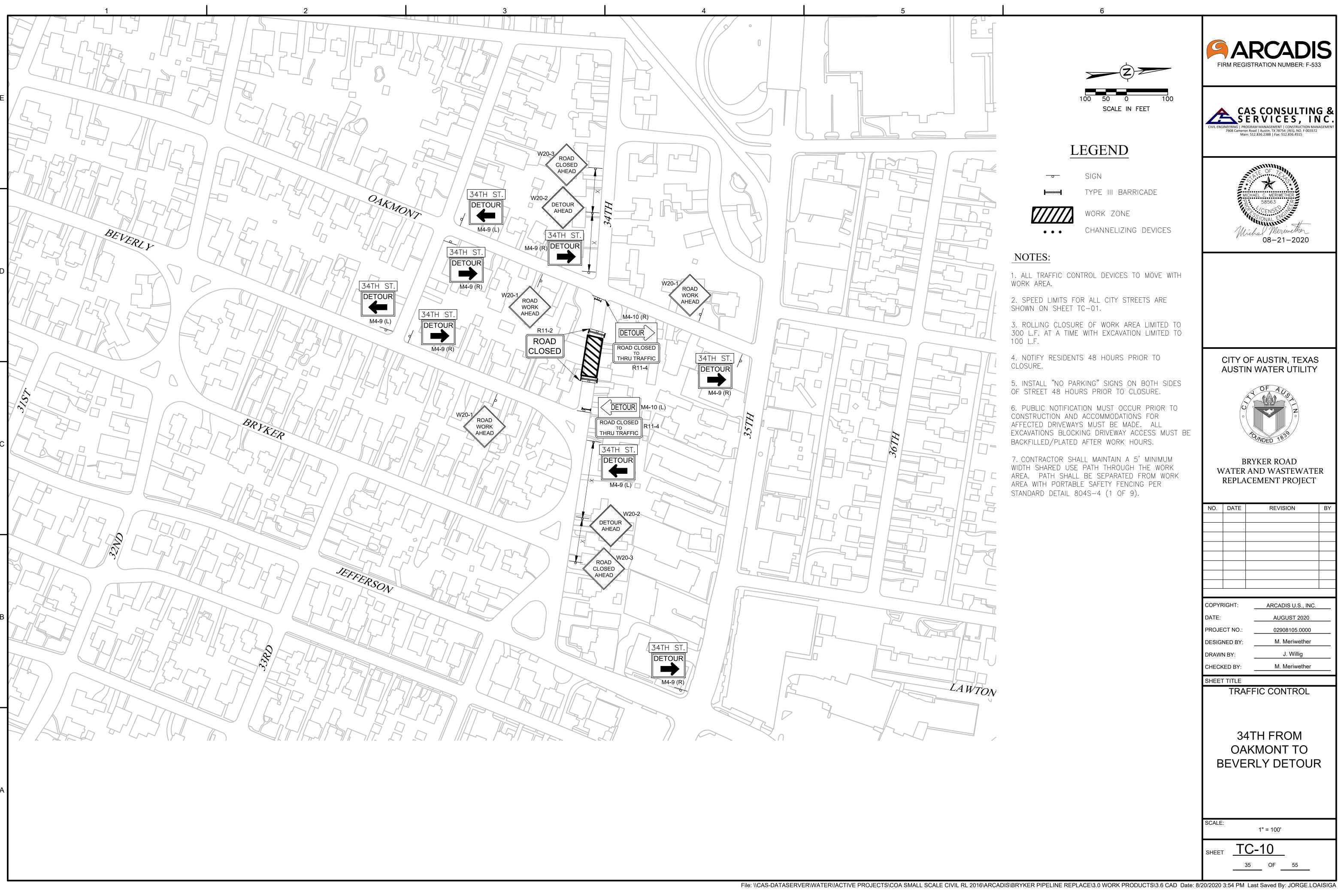




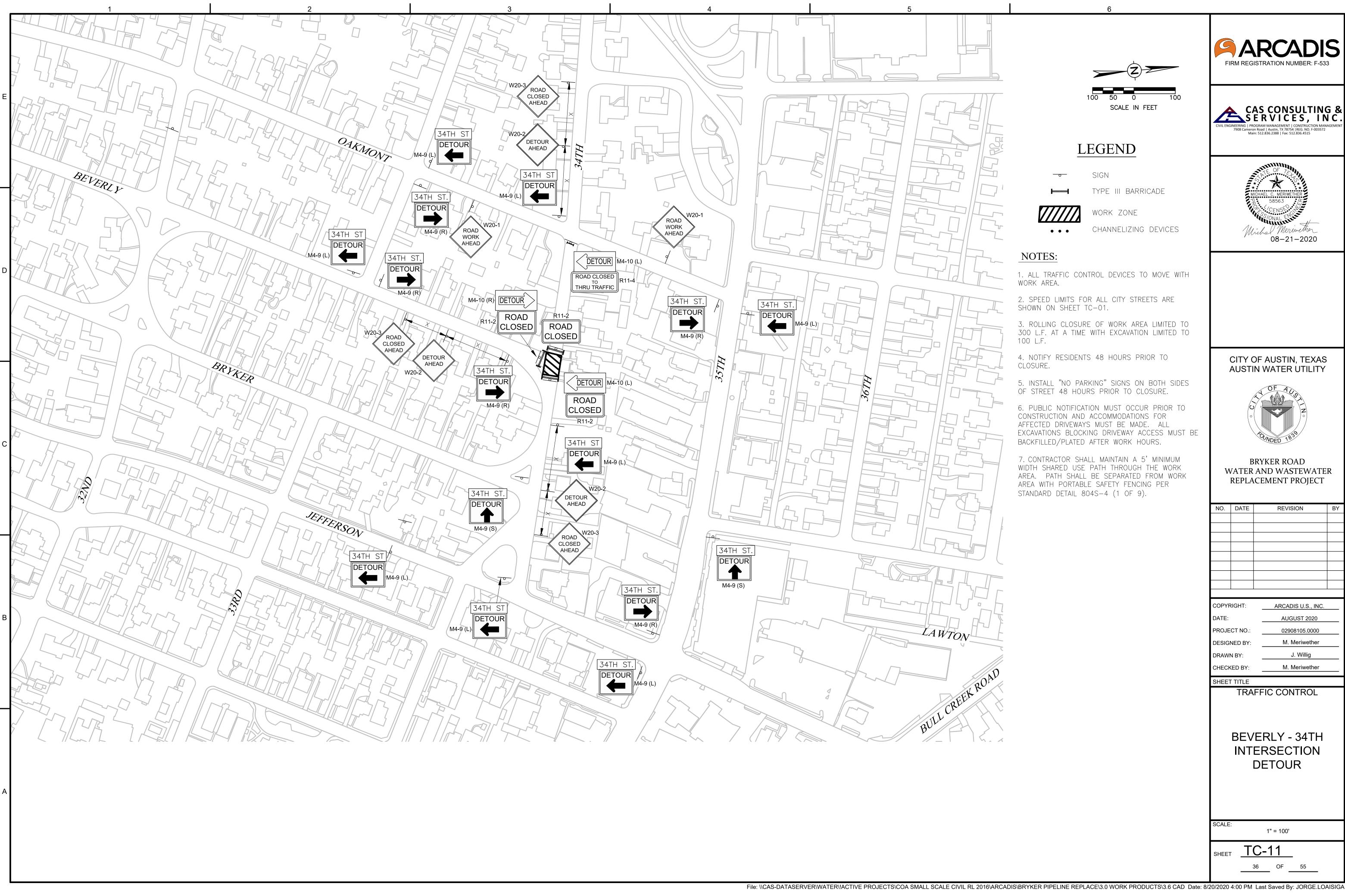
NO.	DATE	REVISION	BY



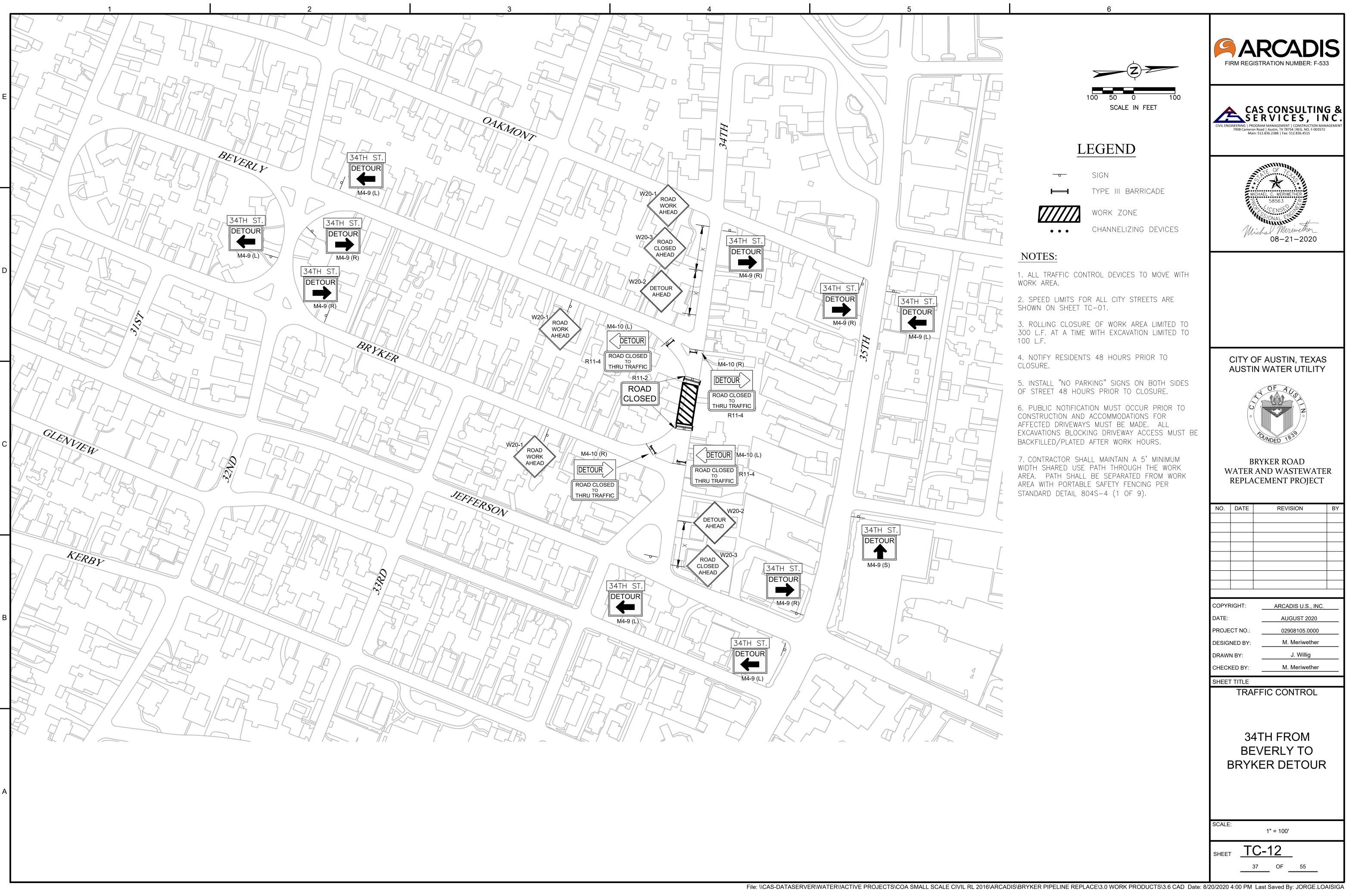
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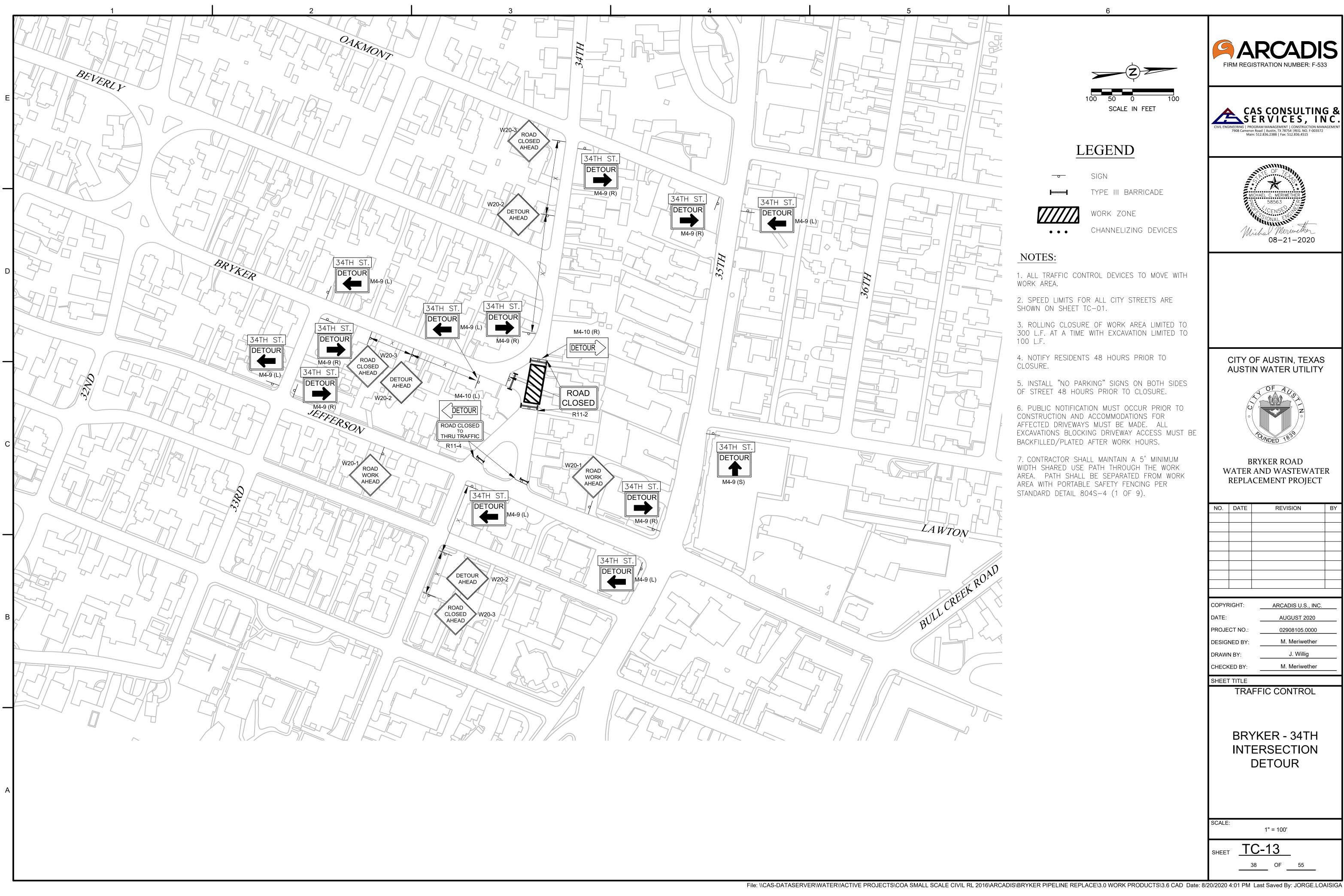


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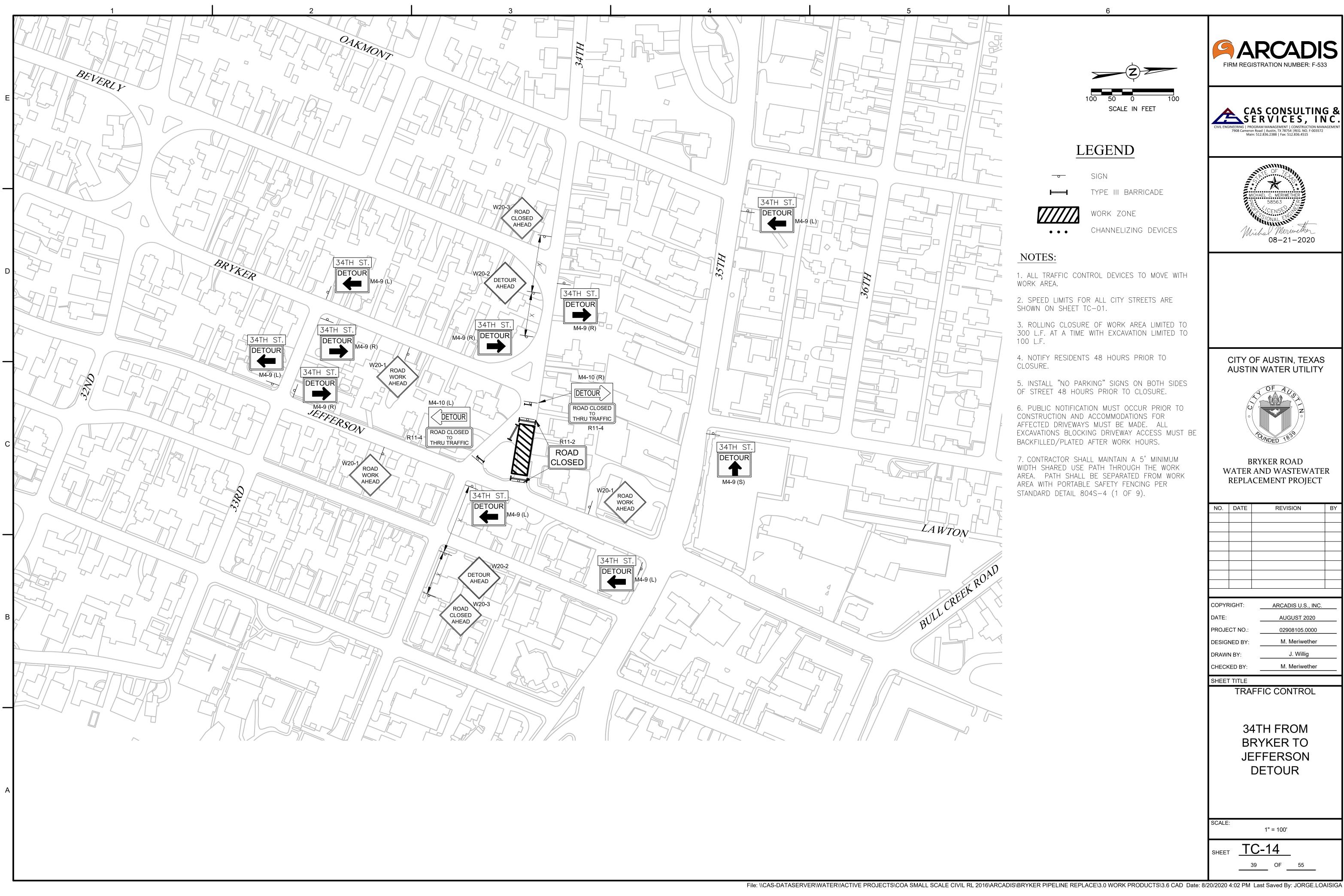




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CAS CONSULTING & SERVICES, INC.

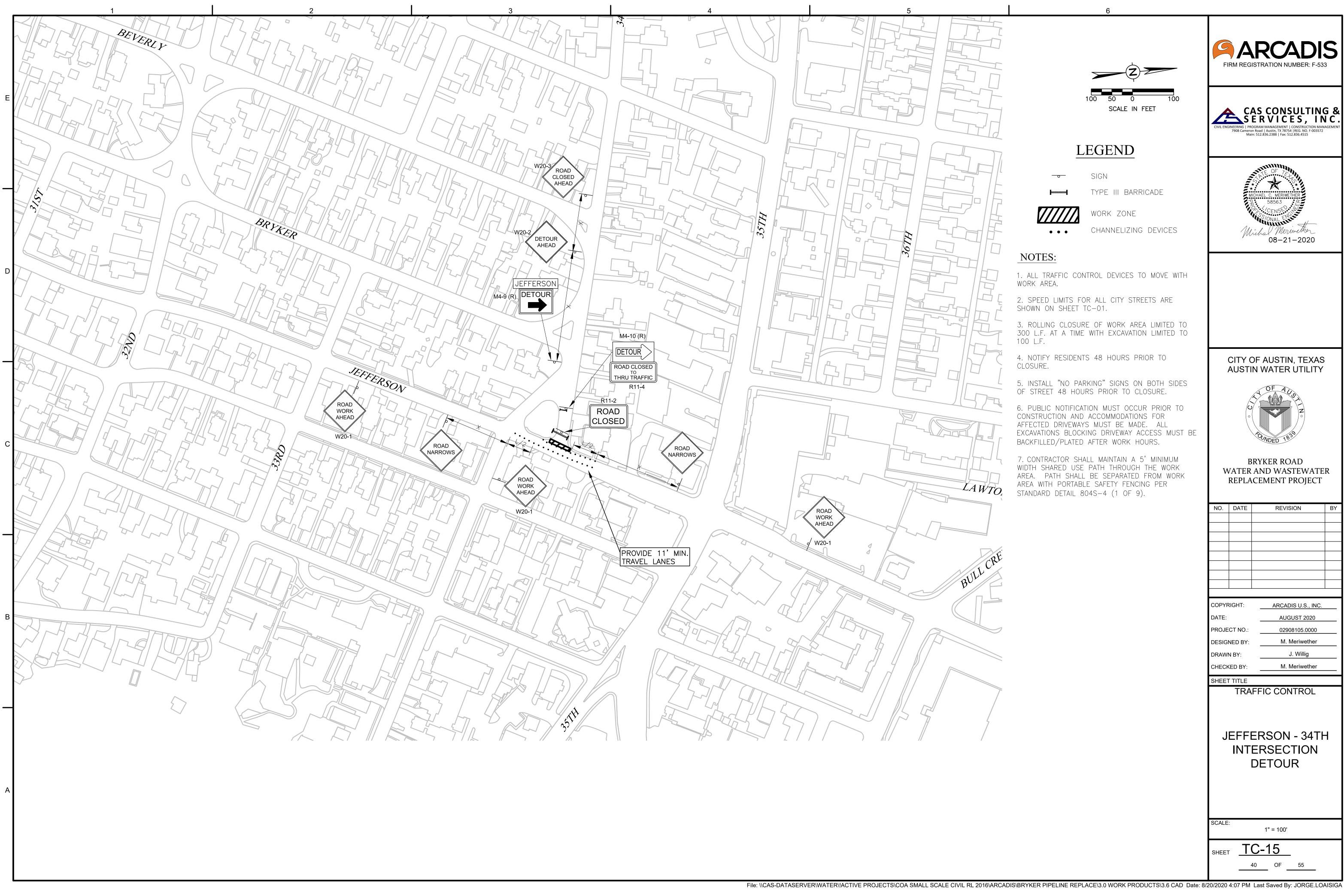
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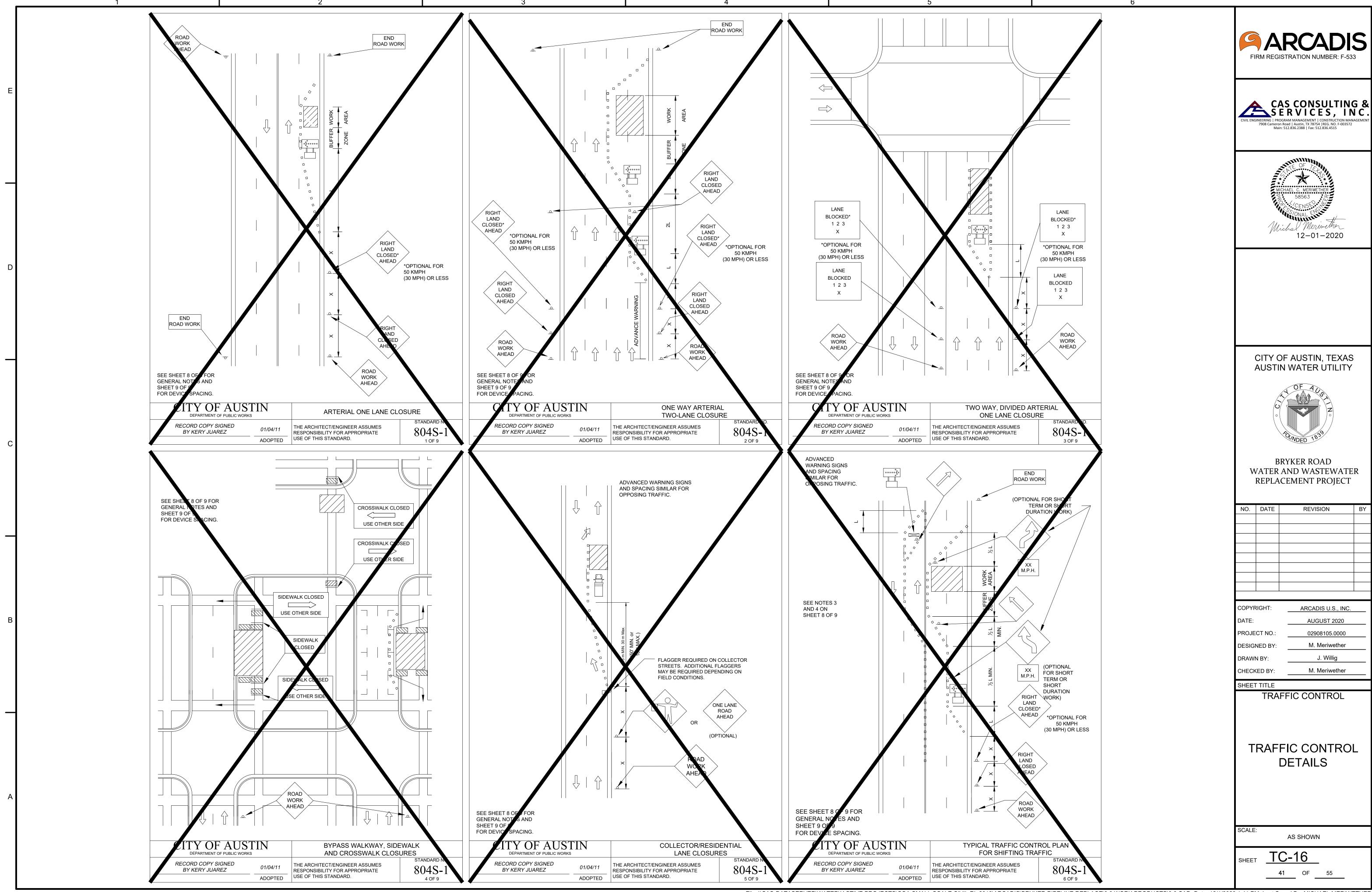
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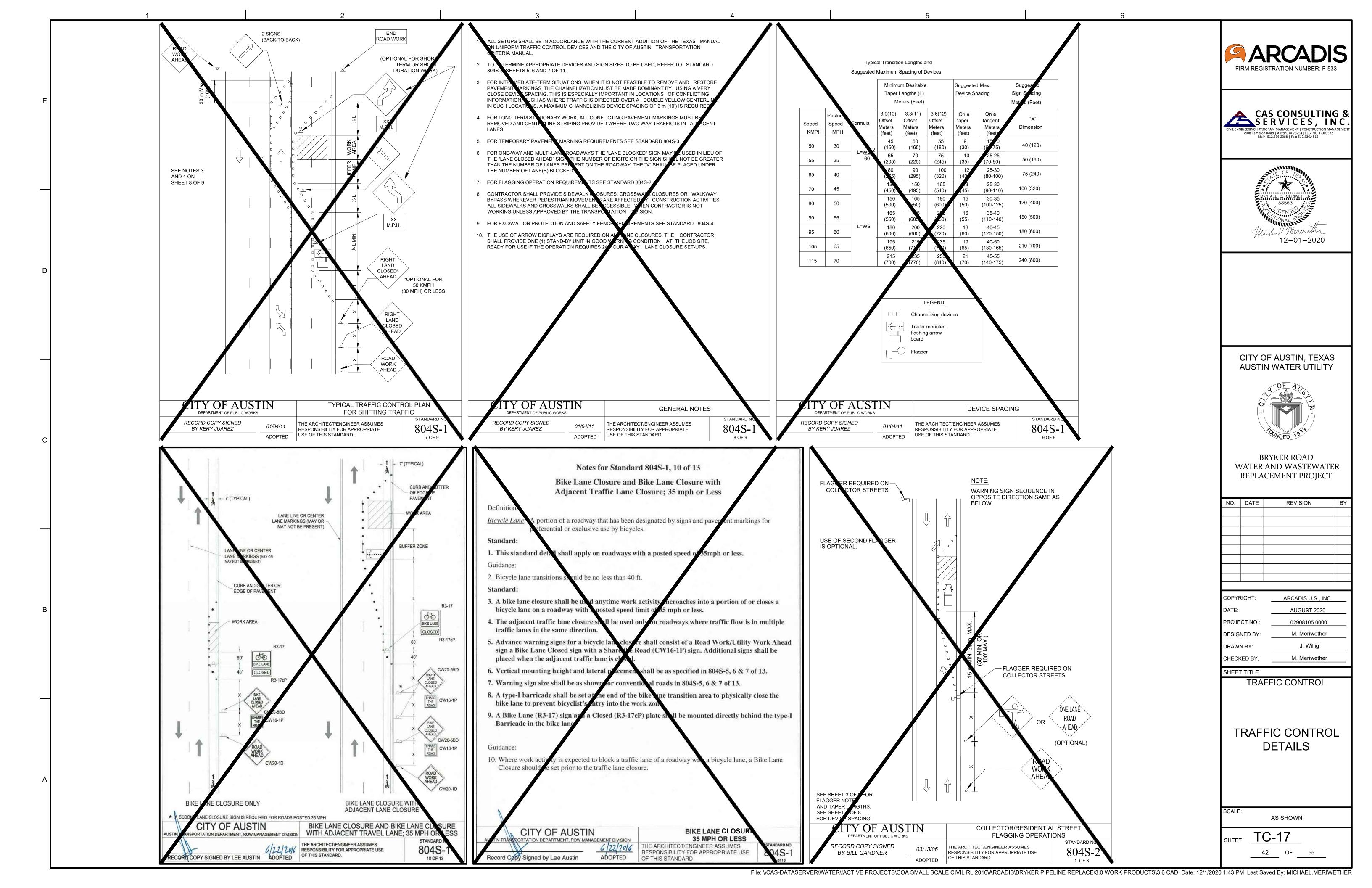


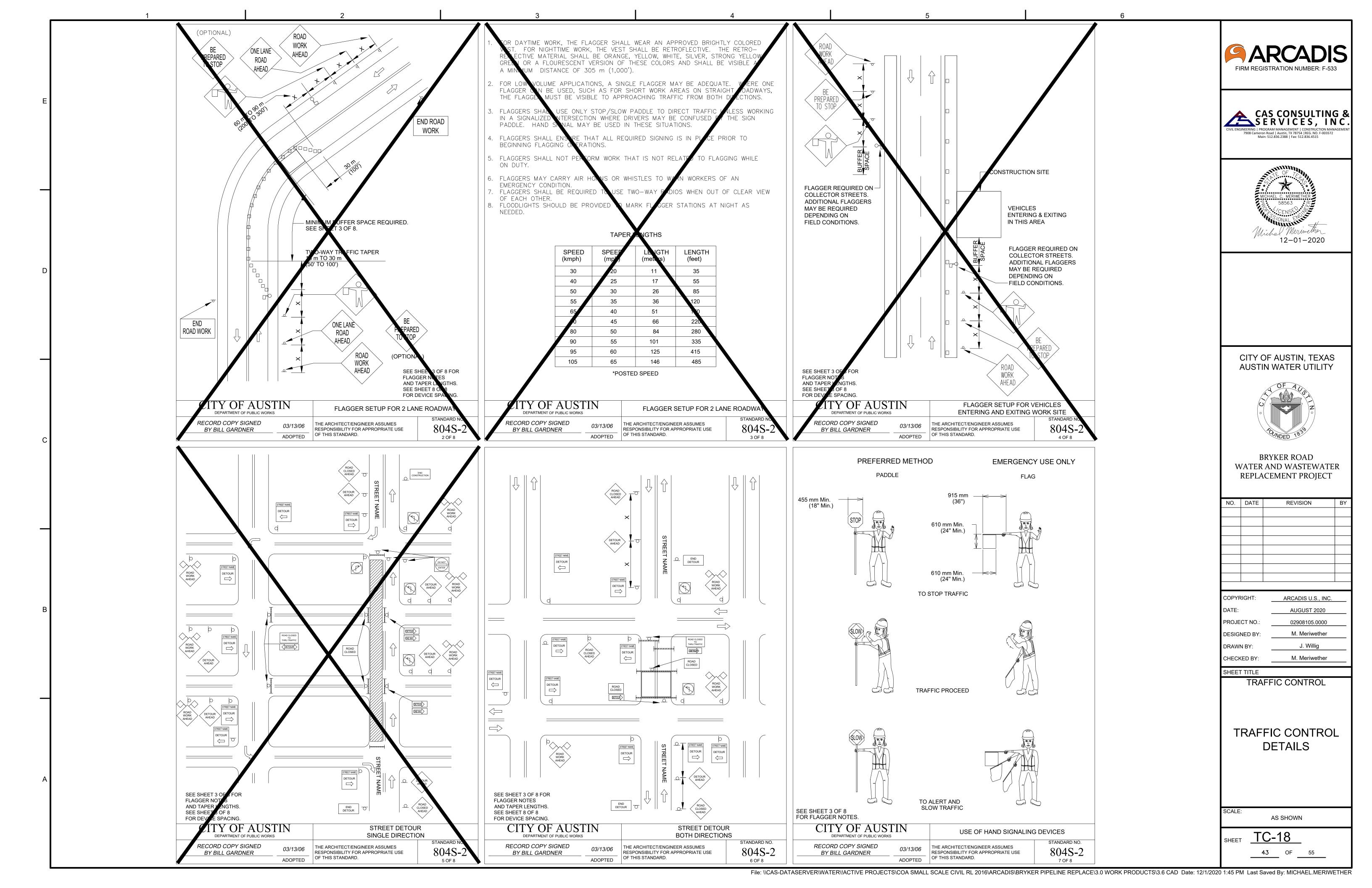


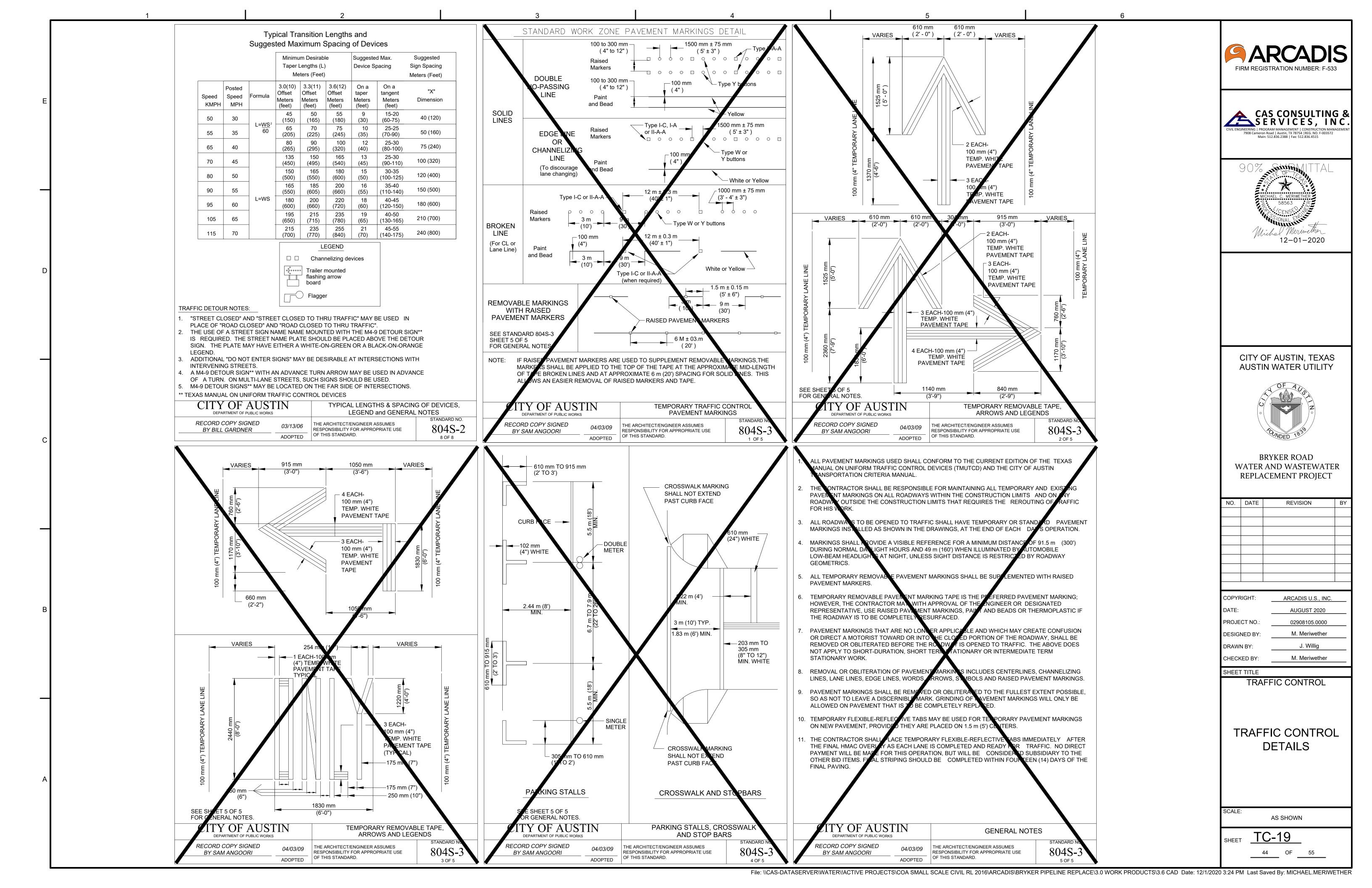
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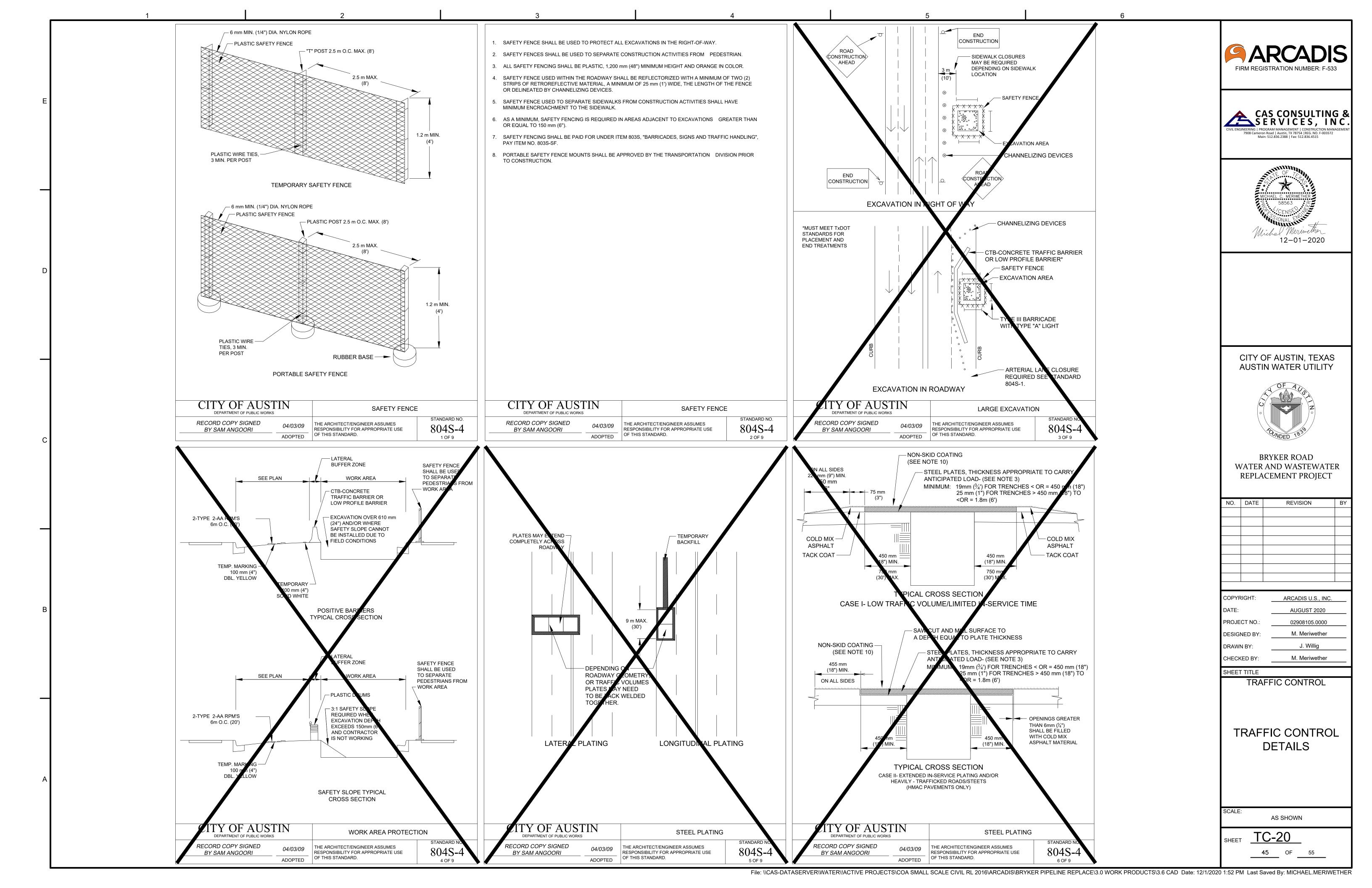
JEFFERSON - 34TH

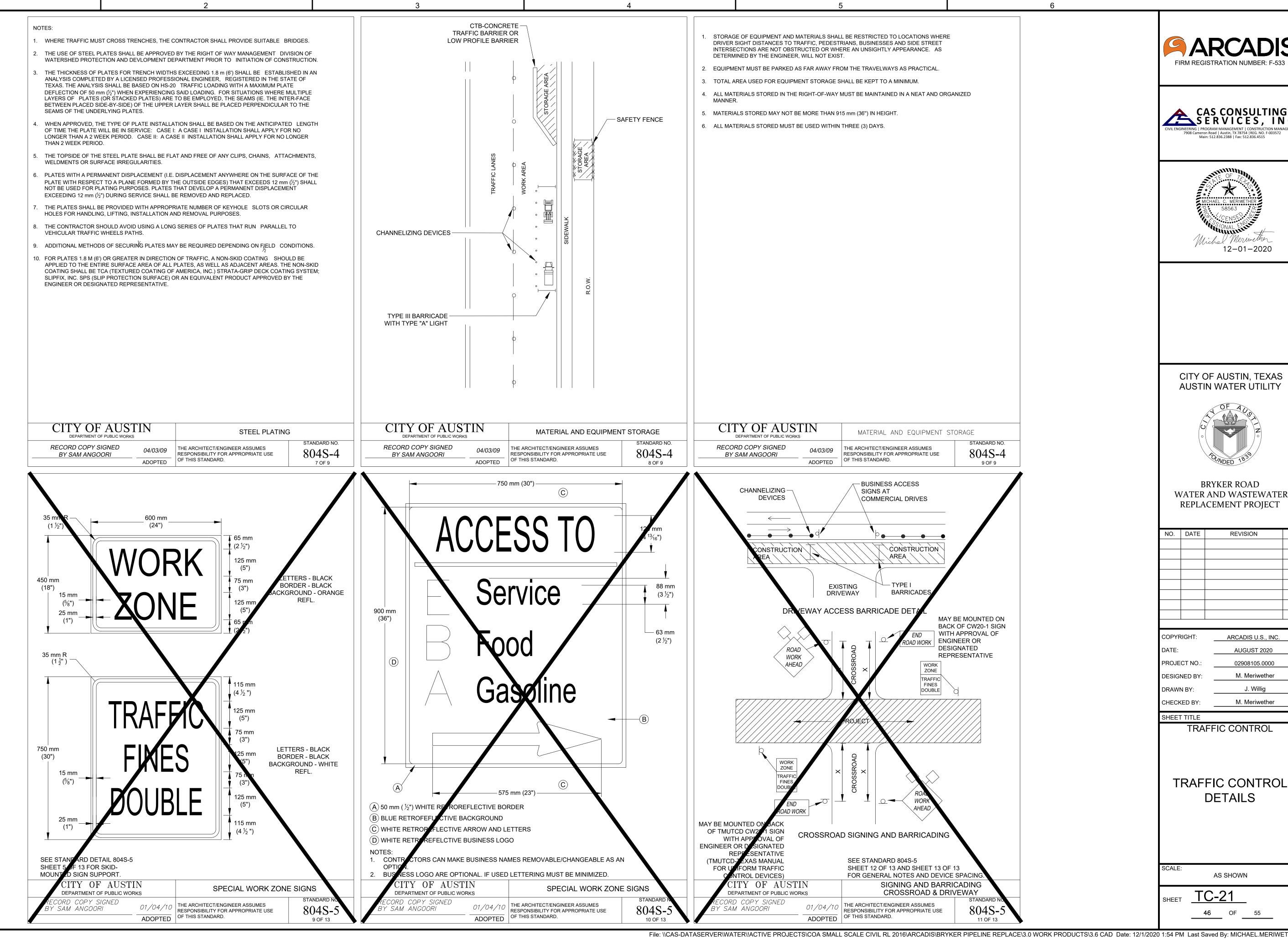












- ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES AND WARNING SIGNS SHALL BE FURNISHED, PLACED, CONSTRUCTED AND MAINTAINED IN THE APPROPRIATE TYPES AND SIZES AND FLAGGER OPERATIONS EXECUTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM CONTROL DEVICES (TMUTCD), THE CITY OF AUSTIN STANDARD SPECIFICATIONS SERIES 800 AND THE CITY OF AUSTIN TRANS- PORTATION CRITERIA MANUAL, OR AS DIRECTED BY THE ENGINEER OR DESIGNATED RE- PRESENTATIVE. IF A CONFLICT ARISES THEN THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL SHALL CONTROL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE
- THE CONTRACTOR SHALL NOTIFY THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024 NO LATER THAN THE MONDAY OF THE WEEK DURING WHICH THE CONTRACTOR INTENDS TO SET UP BARRICADES TO START CONSTRUCTION.
- PROPOSED CONSTRUCTION TRAFFIC MOVEMENTS MAY REQUIRE EXISTING SIGNAL HEADS TO BE RELOCATED. THE CITY OF AUSTIN WILL REVIEW SIGNAL HEAD LOCATIONS DURING CONSTRUCTION AND PERFORM THE REQUIRED ADJUSTMENTS. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AT 974-7024, THREE (3) DAYS PRIOR TO PLACMENT ANY TRAFFIC CONTROLS WHICH MAY REQUIRE SIGNAL HEAD ADJUSTMENTS/RELOCATION.
- THE CONTRACTOR SHALL PROVIDE ONE (1) FULL-TIME OFF-DUTY, UNIFORMED AUSTIN POLICE DEPARTMENT CERTIFIED PEACE OFFICER AND ONE (1) VEHICLE OF THE TYPE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE FOR TEMPORARY LANE CLOSURES WHEN UNDERSEALING, MILLING, PAVING AND WHEN WORKING IN INTERSECTIONS AS PART OF THE TRAFFIC CONTROL OPERATIONS. THE PEACE OFFICER SHALL BE ABLE TO SHOW PROOF OF
- CERTIFICATION BY THE TEXAS COMMISSION ON LAW ENFORCEMENT OFFICER STANDARDS. THE CONTRACTOR SHALL NOTIFY ALL OTHER GOVERNMENTAL AGENCIES WHOSE RIGHTS-OF-WAY ARE AFFECTED BY HIS WORK ACTIVITIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT THEY MAY NEED.
- THE CONTRACTOR SHALL MAINTAIN ONE (1) DUST-FREE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR APPROVED THE ENGINEER OR DESIGNATED REPRESENTATIVE.
- THERE SHALL BE A MINIMUM OF THREE (3) METERS (10 FEET) CLEAR WIDTH FOR EACH LANE OF TRAFFIC IN CHANNELIZED AREAS, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
- 3. THE CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS AT ALL TIMES. IF ACCESS CANNOT BE MAINTAINED, THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER OR DESIGNATED REPRESENTATIVE SHALL PROVIDE AT LEAST 24 HOUR WRITTEN NOTICE OF LIMITED ACCESS TO AFFECTED PROPERTY OWNERS. THE CONTRACTOR SHALL PROVIDE BUSINESS ACCESS SIGNS AS NEEDED TO NFORM DRIVERS OF THE LOCATIONS OF ALL DRIVEWAYS.
- TEMPORARY LANE CLOSURES IN THE CENTRAL BUSINESS DISTRICT (CBD) OR ON ARTERIAL STREETS SHALL NOT BE PERMITTED DURING THE HOURS OF 7 AM TO 9 AM AND 4 PM TO 6PM MONDAY THROUGH FRIDAY UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE TRANSPORTATION DIVISION.
- 10. TRAFFIC CONTROL SHOWN ON STANDARD DETAILS IS TYPICAL. ADDITIONAL SIGNING AND/OR BARRICADING, AS WELL AS TEMPORARY PAVEMENT MARKINGS AND OBLITERATION/ RESTORATION OF EXISTING PAVEMENT MARKINGS, MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS. FIELD ADJUSTMENTS TO TRAFFIC CONTROLS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO ITEM NO. 803S "BARRICADES, SIGNS AND TRAFFIC HANDLING".
- 11. THE CONTRACTOR SHALL DESIGNATE A COMPETENT PERSON FOR TRAFFIC CONTROL. THE COMPETENT PERSON SHALL MAKE INSPECTIONS OF THE TRAFFIC CONTROL DEVICES AT LEAST TWO (2) TIMES A DAY (ONCE AT THE BEGINNING OF THE DAY AND ONCE AT THE END OF THE DAY), INCLUDING NON-WORKING DAYS, ENSURING THAT ALL DEVICES ARE IN THEIR PROPER PLACE AND ARE IN WORKING ORDER.
- 12. ALL DEVICES SHALL BE MADE USING MATERIALS LISTED ON THE TXDOT APPROVED PRODUCTS LIST.

WORK

60 m TO 90 m ___ (200' TO 300')

 \Rightarrow

PREPARED TO STOP

END ROAD WORK

CLOSED

	CITY OF AUSTI DEPARTMENT OF PUBLIC WOR	- '	GENERAL TRAFFIC CONTROL NOTES	
	RECORD COPY SIGNED BY SAM ANGOORI	01/04/10	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE	standard no. 804S-5
-		ADOPTED	OF THIS STANDARD.	12 OF 13

- ALL PERSONS WORKING WITHIN THE RIGHT-OF-WAY SHALL WEAR A BRIGHTLY COLORED SAFETY VEST. FOR NIGHTTIME WORK THE VEST SHALL BE RETROREFLECTIVE. WHEN AN INTERSECTION IS CLOSED FOR CONSTRUCTION, THE CONTRACTOR SHALL
- PROCEED WITH CONSTRUCTION IN SUCH A MANNER THAT THE CLOSURE TIME IS MINIMIZED.
- 3. THE CONTRACTOR SHALL NOTIFY THE CAPITAL METRO DISPATCHER AT 385-4295 ONE (1) WEEK PRIOR TO LANE CLOSURES ADJACENT TO BUS STOPS.

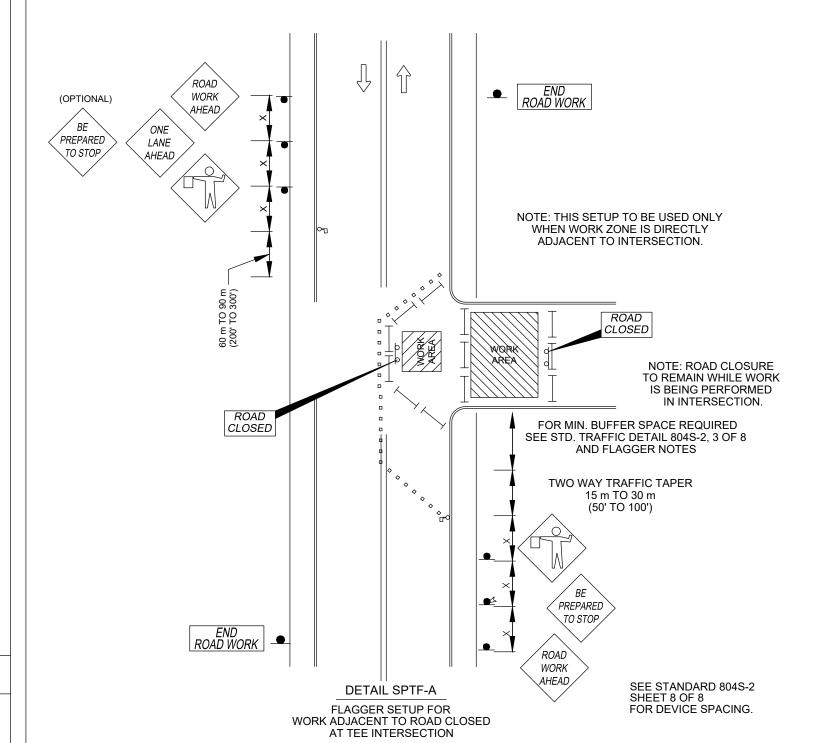
DURATION OF WORK

WORK DURATION IS A MAJOR FACTOR IN DETERMINING THE NUMBER AND TYPES OF DEVICES USED IN TEMPORARY TRAFFIC ZONES. THE FIVE (5) CATEGORIES OF WORK

- DURATION AND THEIR TIME AT A LOCATION ARE AS FOLLOWS: - LONG-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FOR MORE THAN 3 DAYS.
- INTERMEDIATE-TERM STATIONARY-WORK THAT OCCUPIES A LOCATION FROM OVERNIGHT TO 3 DAYS.
- SHORT-TERM STATIONARY-DAYTIME WORK THAT OCCUPIES A LOCATION FROM 1 TO 12 HOURS. - SHORT-DURATION WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.
- MOBILE-WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

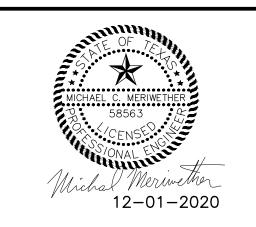
Typical Transition Lengths and Suggested Maximum Spacing of Devices							
		Та	Minimum Desirable Taper Lengths (L) Meters (Feet) Suggested Max. Device Spacing			Suggested Sign Spacing Meters (Feet)	
Posted Speed KPH (MPH)	Formula	3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	On a taper Meters (feet)	On a tangent Meters (feet)	"X" Dimension
50 (30)		45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55 (35)	L= <u>WS</u> ² 60	65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65 (40)		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70 (45)		135 (450)	(495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80 (50)		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90 (55)		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
100 (60)	L=WS	180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105 (65)		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115 (70)		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

CITY OF AUSTI	- 1	GENERAL TRAFFIC CONTROL NOTES	
RECORD COPY SIGNED BY SAM ANGOORI	01/04/10	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE	standard no. $804S-5$
	ADOPTED	OF THIS STANDARD.	13 OF 13









CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY

COPYRIGHT: ARCADIS U.S., INC. DATE: AUGUST 2020 PROJECT NO. 02908105.0000 M. Meriwether DESIGNED BY J. Willig DRAWN BY:

SHEET TITLE

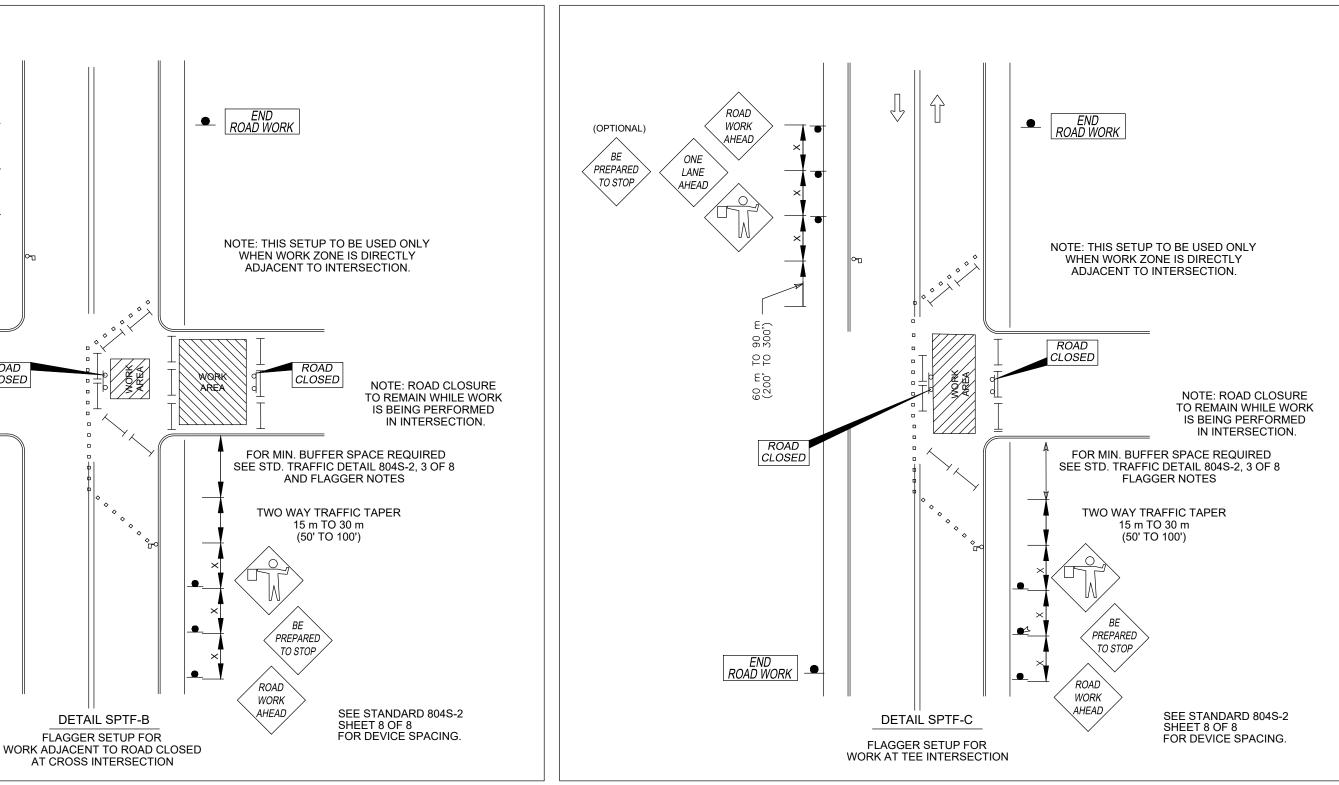
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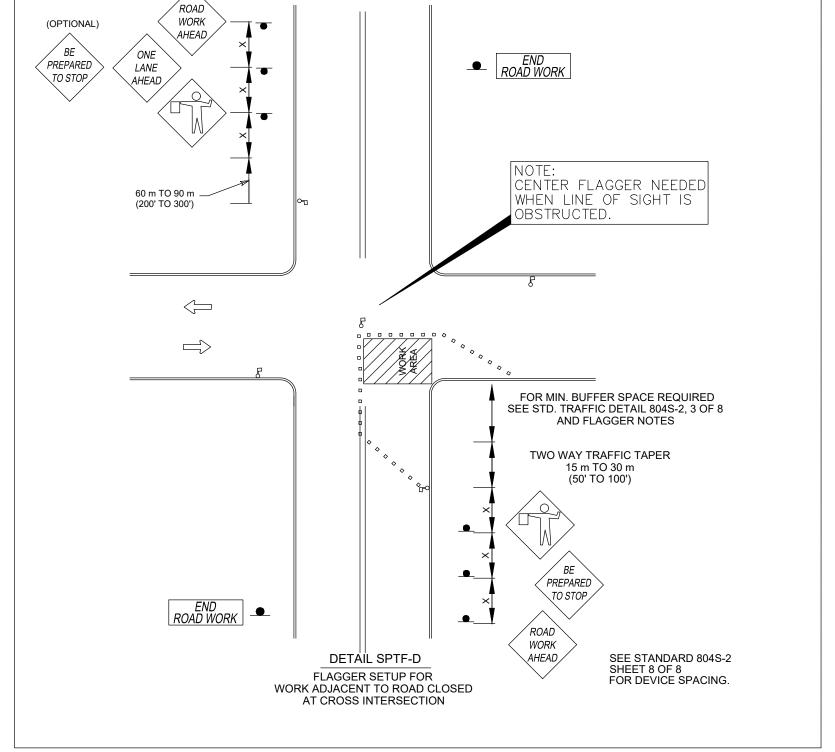
TRAFFIC CONTROL

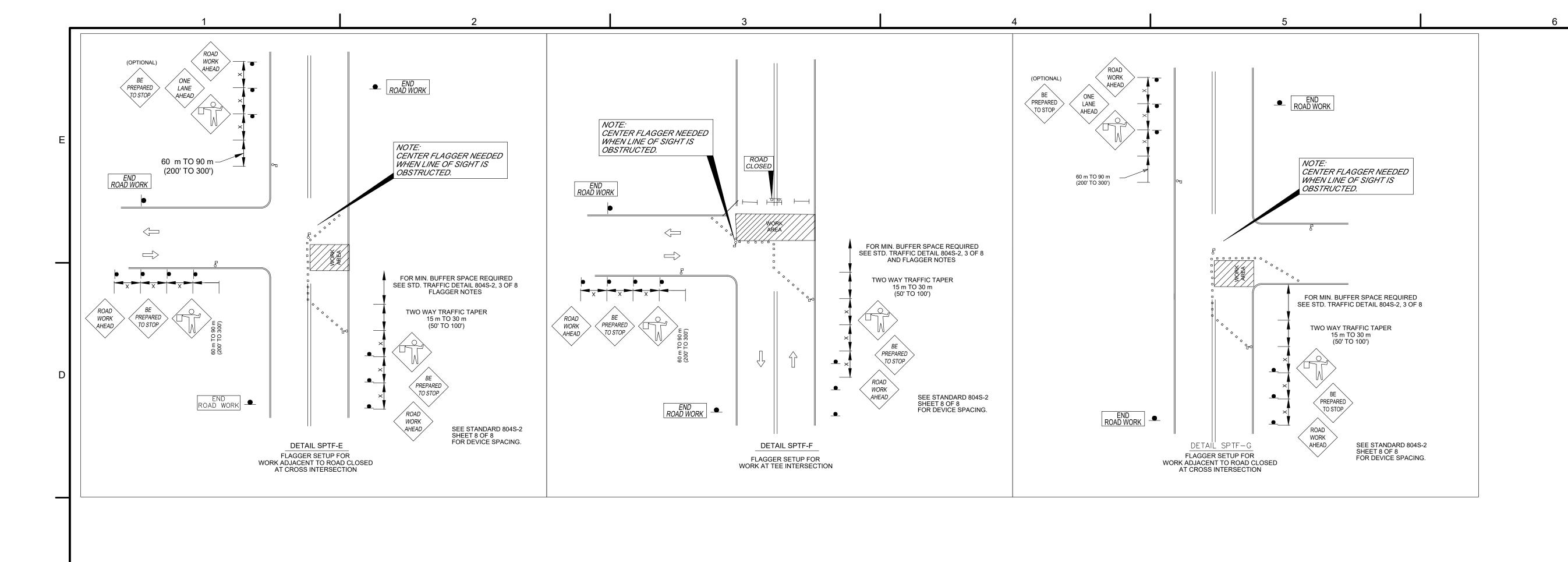
M. Meriwether

TRAFFIC CONTROL **DETAILS**

AS SHOWN TC-22

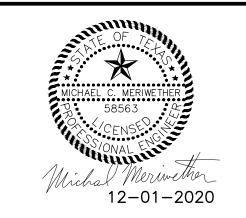












CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY

COPYRIGHT: ARCADIS U.S., INC.

DATE: AUGUST 2020

PROJECT NO.: 02908105.0000

DESIGNED BY: M. Meriwether

DRAWN BY: J. Willig

CHECKED BY: M. Meriwether

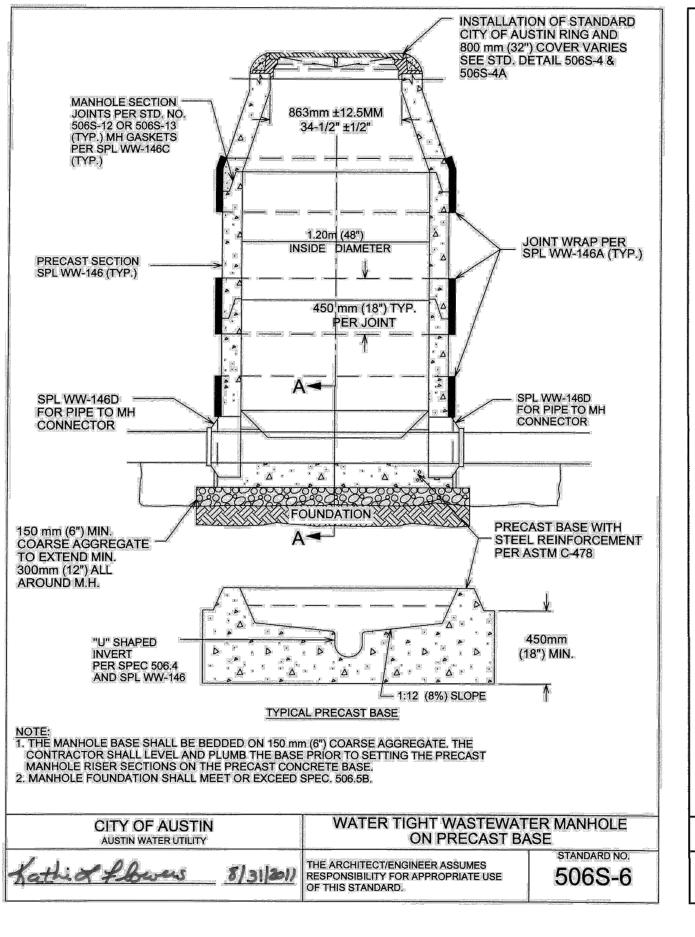
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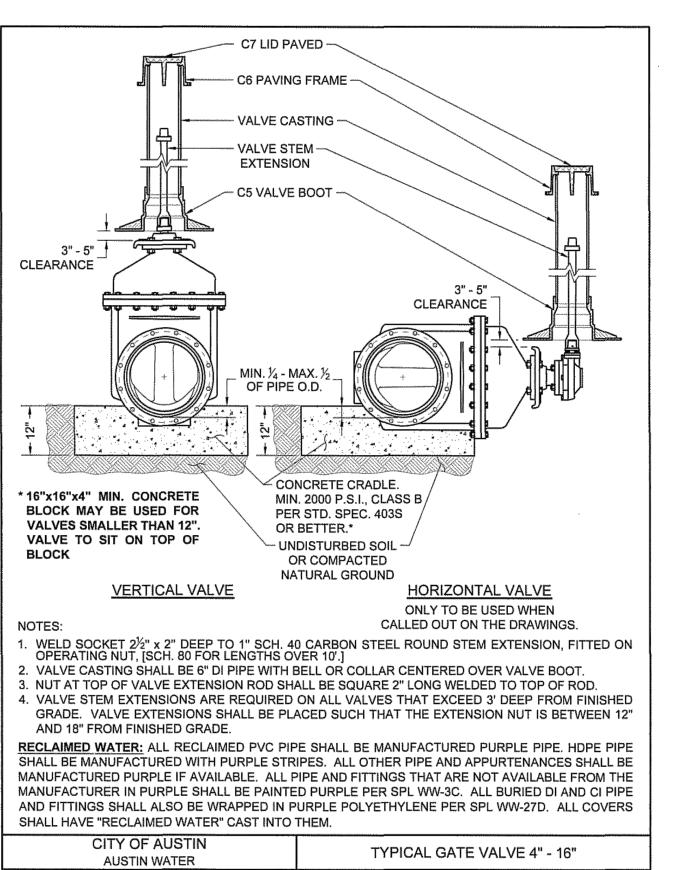
TRAFFIC CONTROL

TRAFFIC CONTROL DETAILS

SCALE: AS SHOWN

SHEET <u>TC-23</u>
48 OF 55





THE ARCHITECT/ENGINEER ASSUMES

RESPONSIBILITY FOR APPROPRIATE

USE OF THIS STANDARD.

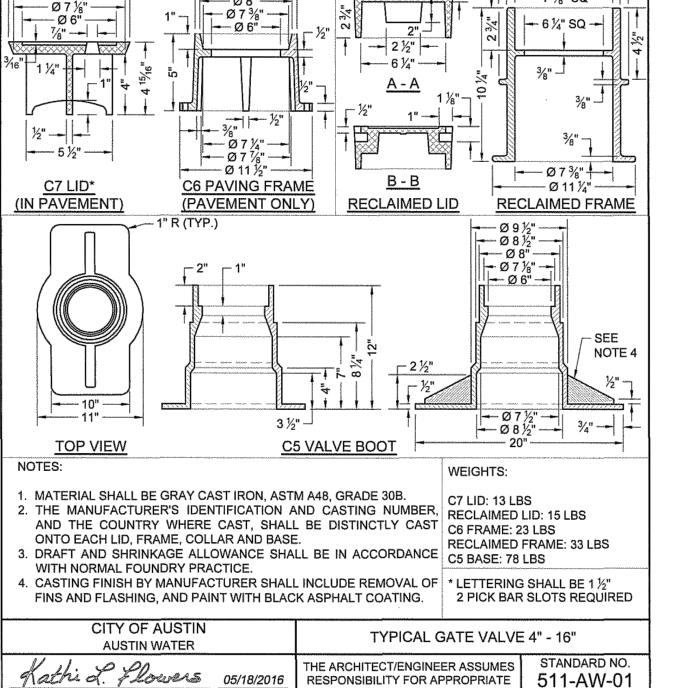
05/18/2016

ADOPTED

STANDARD NO.

511-AW-01

1 OF 4



USE OF THIS STANDARD.

ADOPTED

RECLAIMED_

WATER

VALVE

TOP VIEW

--- 7 1/4" SQ ---

TOP VIEW

- Ø 8 ½"

Ø 8" -

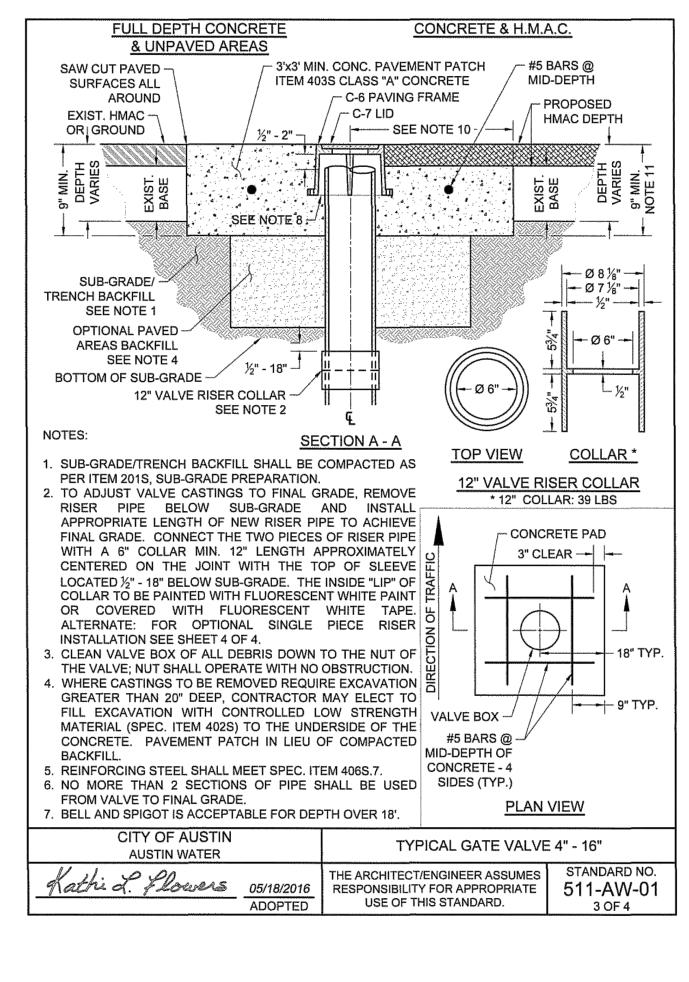
TOP VIEW

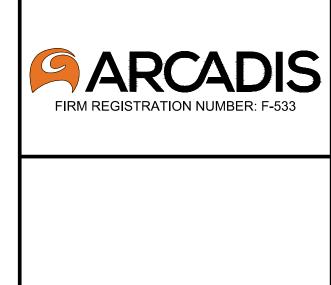
– 9 ¾" SQ -

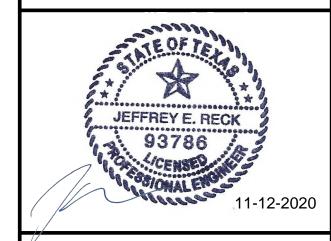
- 8 ½" SQ --

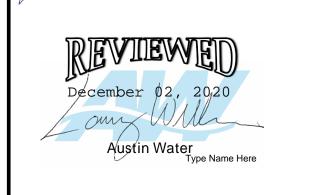
-- 7 %" SQ --

2 OF 4









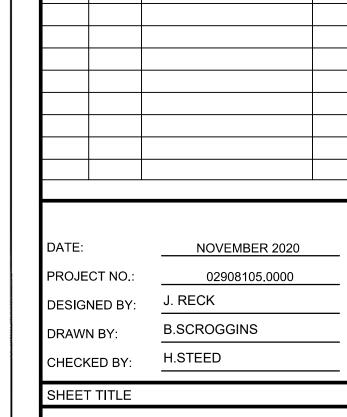
CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

REVISION

NO. DATE

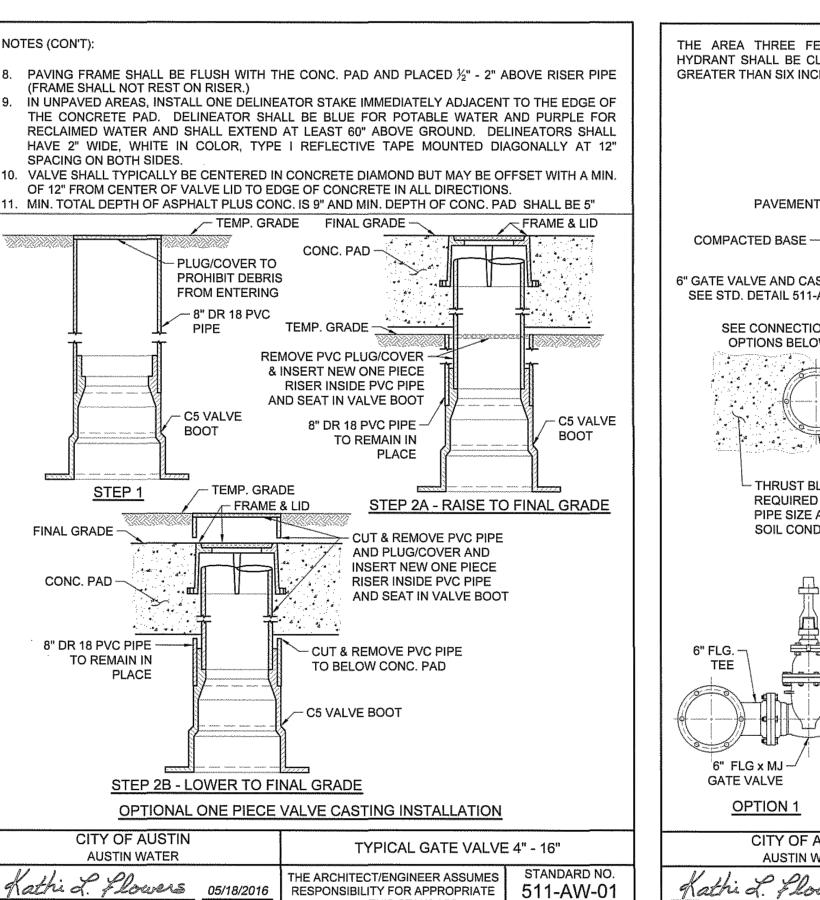


CIVIL

STANDARD DETAILS

AS SHOWN

SD-01 OF



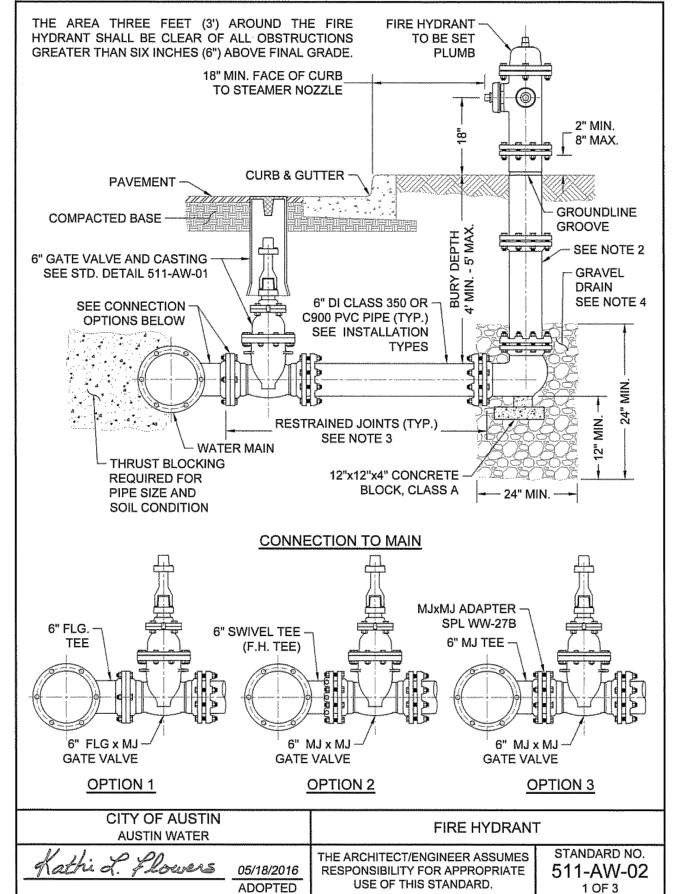
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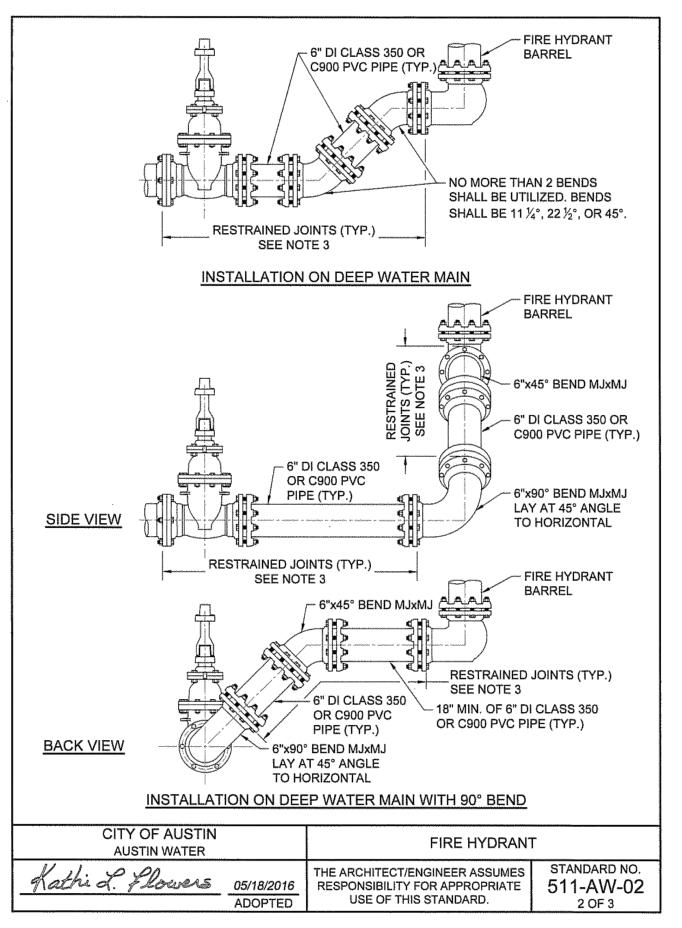
USE OF THIS STANDARD.

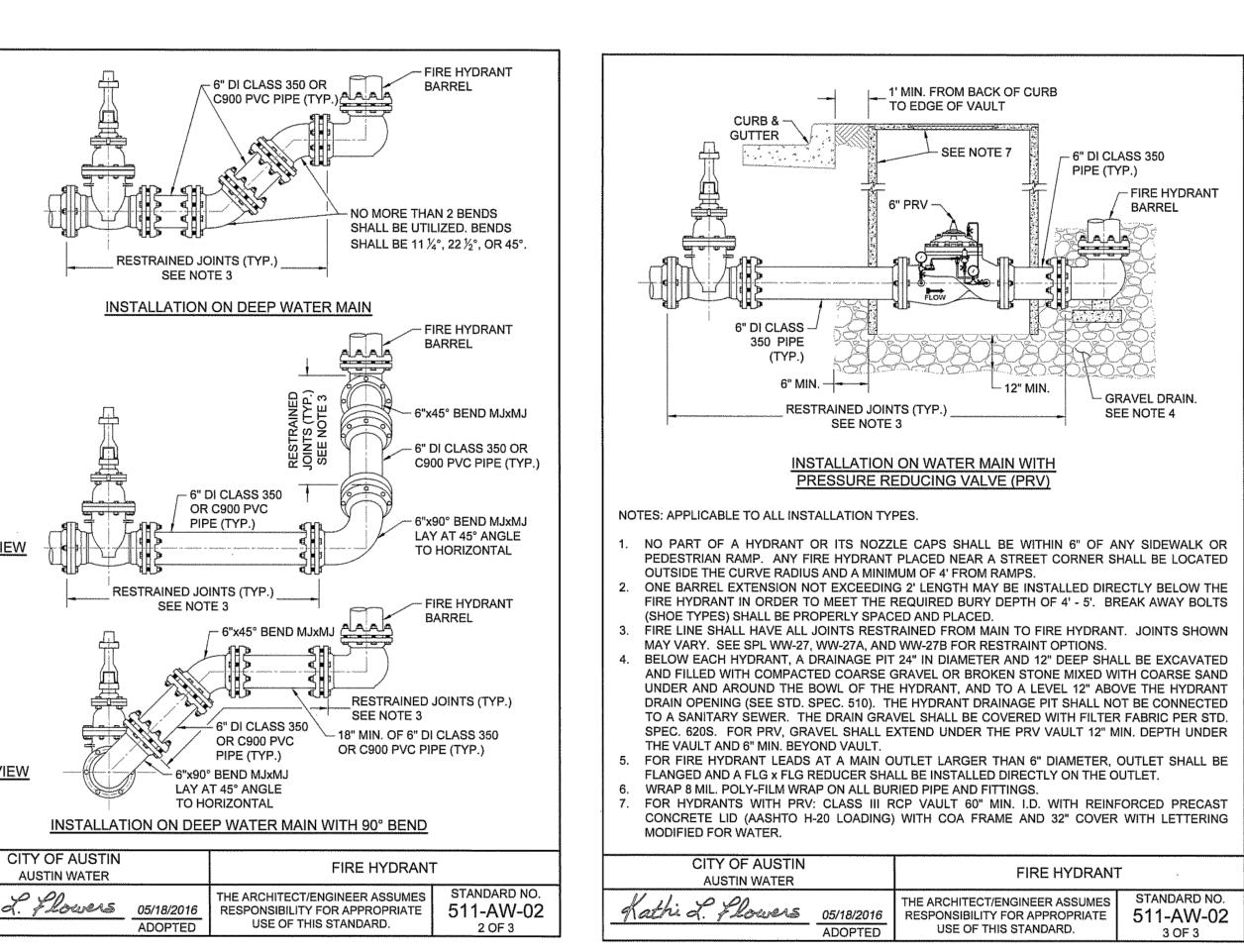
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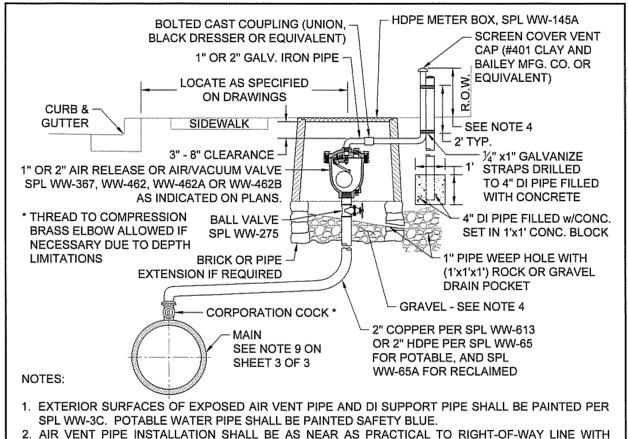
05/18/2016

ADOPTED









2. AIR VENT PIPE INSTALLATION SHALL BE AS NEAR AS PRACTICAL TO RIGHT-OF-WAY LINE WITH MINIMUM CLEARANCE OF 18" FROM ANY OBSTACLE.

3. HDPE METER BOX PENETRATION SHALL BE CORE BIT DRILLED. VOID SHALL BE FILLED WITH LINKSEAL LS 300 OR APPROVED EQUAL. 4. COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH SAND SLOPED TO DRAIN.

5. IN UNDEVELOPED AREAS, THE AIR VENT PIPE SHALL BE 4' MIN. IN HEIGHT SUPPORTED BY A 4" DIA. DI PIPE WHICH HAS BEEN FILLED WITH CONCRETE (SUPPORT PIPE SHALL BE 6' LONG, BURIED IN CLASS A CONCRETE OR CLSM 3' BELOW FINAL GRADE AND EXTENDING 3' ABOVE FINAL GRADE). INSTALL ONE DELINEATOR STAKE WITHIN 3' OF THE VAULT ON THE VEHICULAR ACCESS SIDE OF VAULT OR AS DIRECTED BY AUSTIN WATER. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES. IN DEVELOPED AREAS. THE AIR VENT PIPE SHALL BE 8" - 12" IN HEIGHT AND LOCATED NOT TO CONFLICT WITH SIDEWALK, DRIVEWAY, OR OTHER PEDESTRIAN TRAFFIC.

6. THE AIR VALVE AND ASSOCIATED PIPING SHALL BE INSTALLED ABOVE THE HIGHEST ELEVATION OF THE WATER MAIN. AIR VALVE PIPING, FROM THE WATER MAIN TO THE AIR VALVE, SHALL MAINTAIN A CONSTANT RISE, WITH NO DIPS, TO THE TOP OF THE GROUND.

1" - 2" AIR RELEASE OR AIR/VACUUM VALVE INSTALLATION - TYPE

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER		AIR RELEASE AND AIR/VACUUM VALVE	
Kathi L. Flowers	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-04 1 OF 3

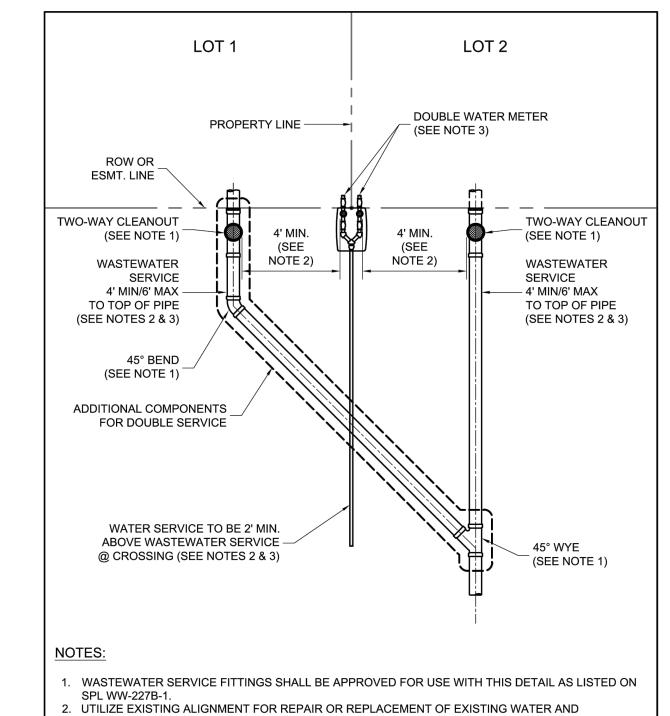
SUBMITTAL.

ENGINEER

RECORD COPY SIGNED

BY KATHI L. FLOWERS

(TYP.)



WASTEWATER SERVICES. WATER SERVICE SHALL BE INSTALLED AT A SHALLOWER GRADE THAN WASTEWATER SERVICE. . SEE STANDARD DETAIL 520-AW-01B FOR WATER SERVICE INSTALLATION AND 520-AW-01C FOR WASTEWATER SERVICE INSTALLATION. CITY OF AUSTIN WATER / WASTEWATER SERVICE ON COMMON LOT LINE **AUSTIN WATER** STANDARD NO. RECORD COPY SIGNED THE ARCHITECT/ENGINEER ASSUMES 11/07/2018 520-AW-01A

ADOPTED

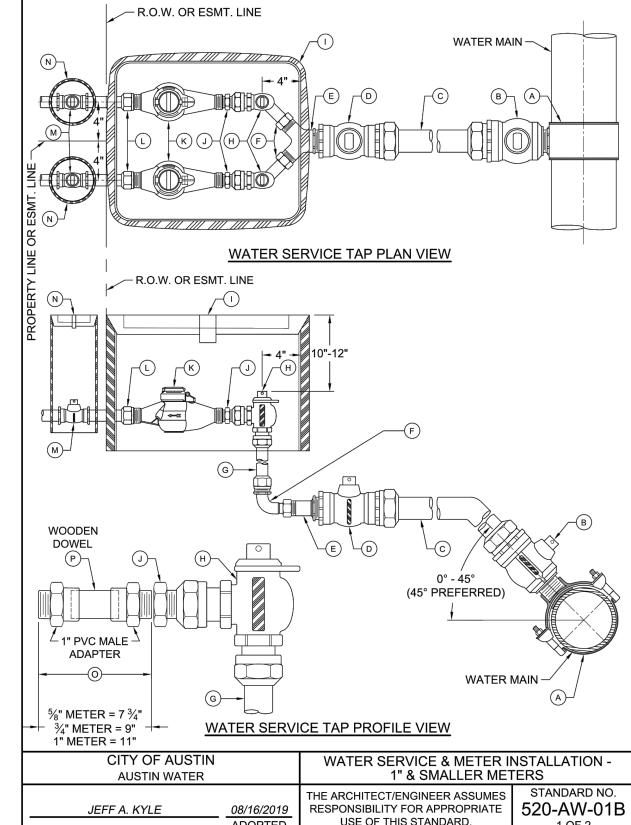
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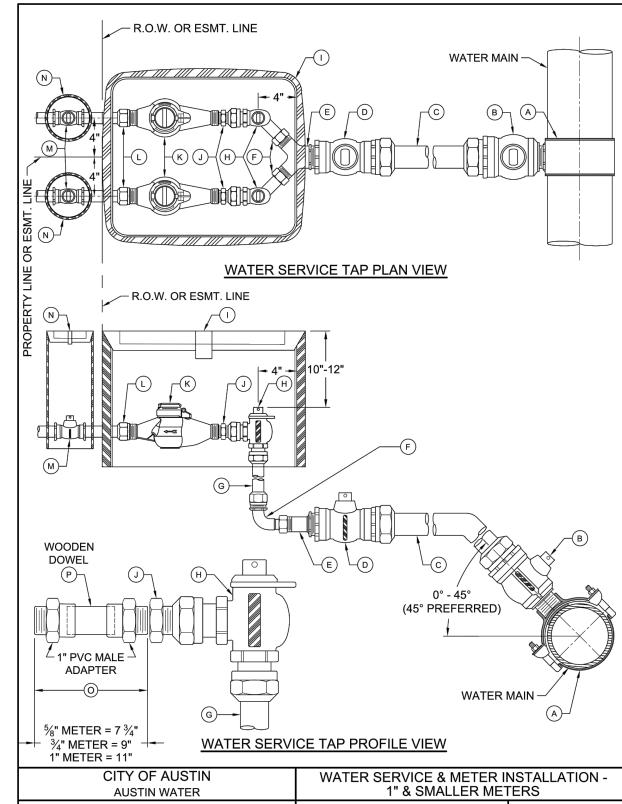
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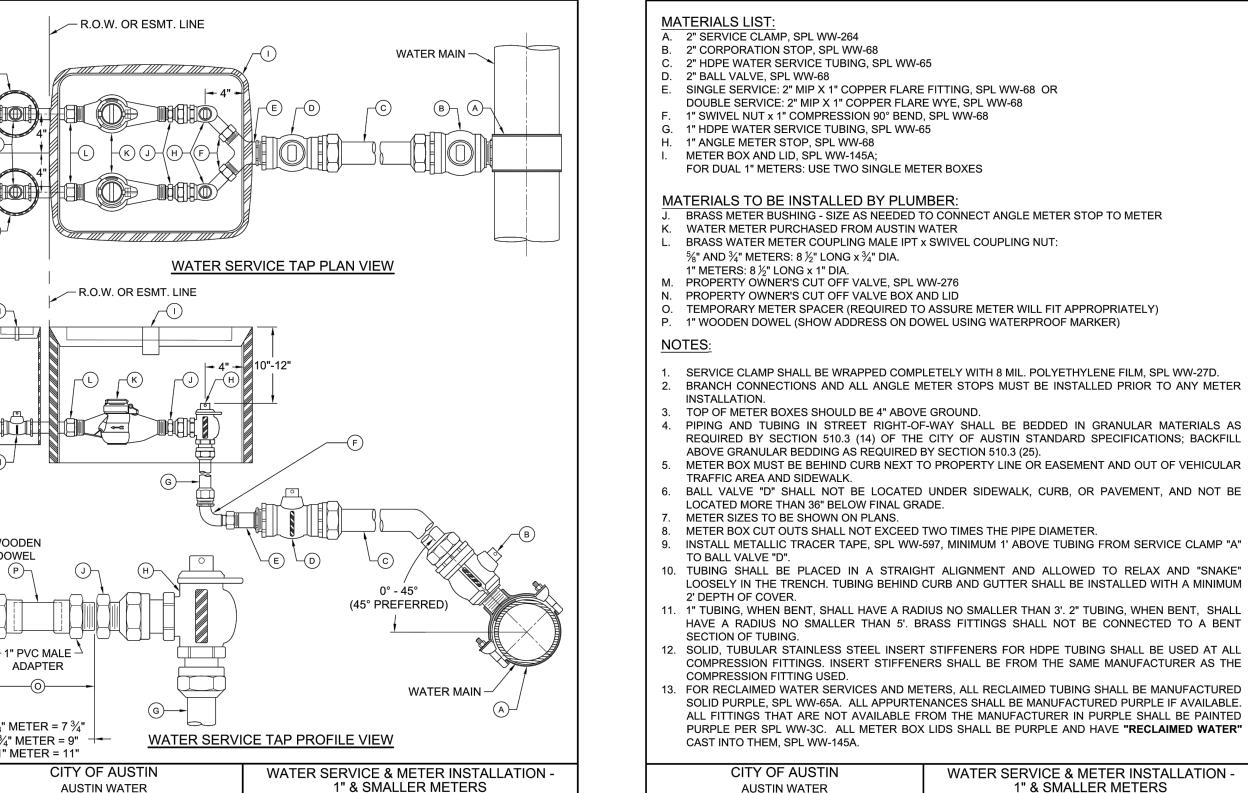
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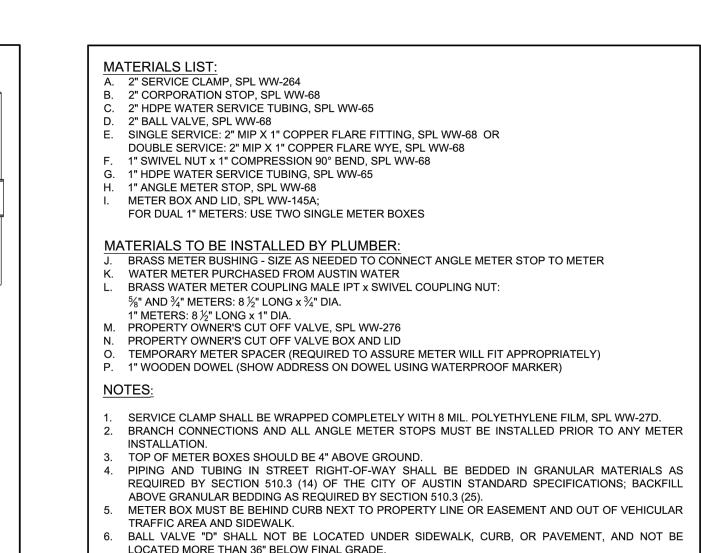
503S-2W

1 OF 3











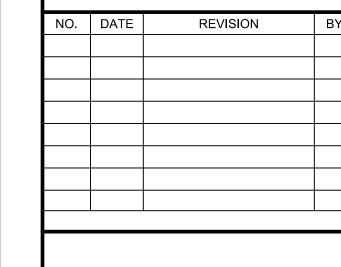
CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**

Austin Water

JEFFREY E. RECK



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT



DATE:	NOVEMBER 2020
PROJECT NO.:	02908105.0000
DESIGNED BY:	J. RECK
DRAWN BY:	B.SCROGGINS
CHECKED BY:	H.STEED

CIVIL

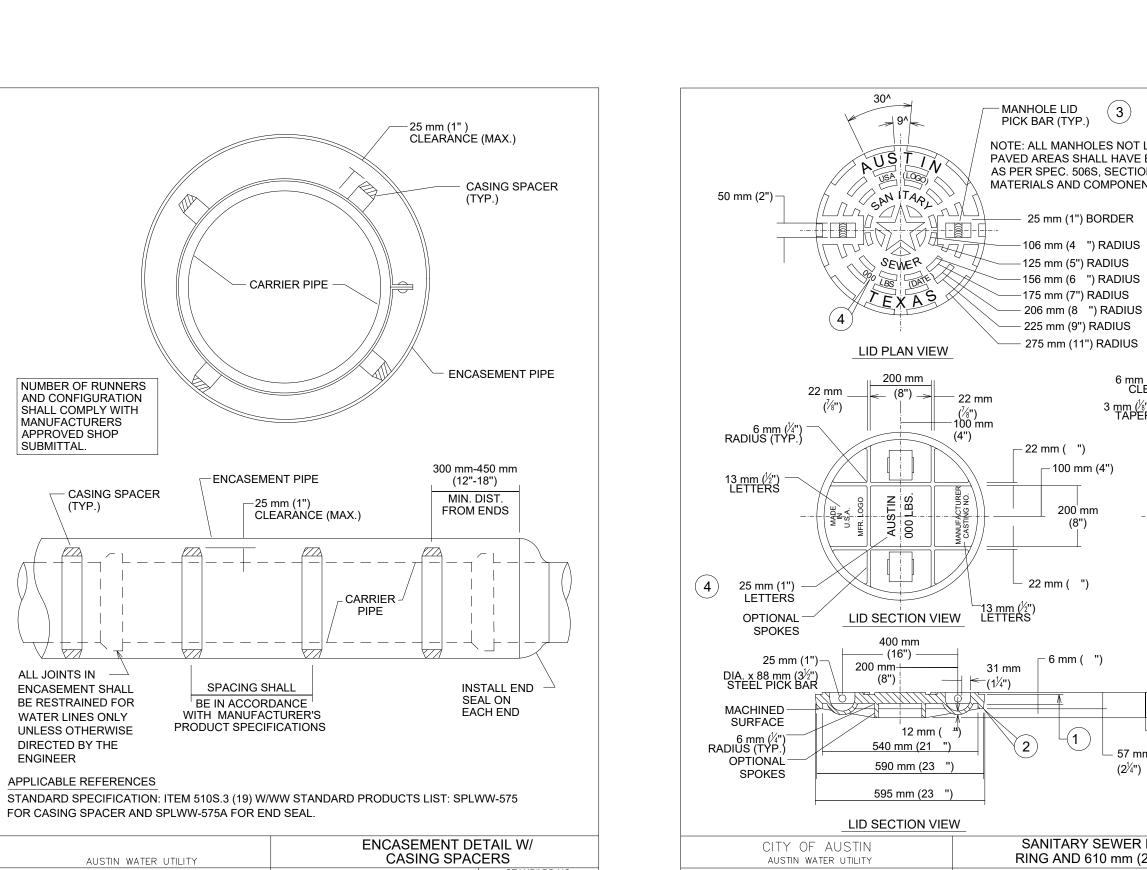
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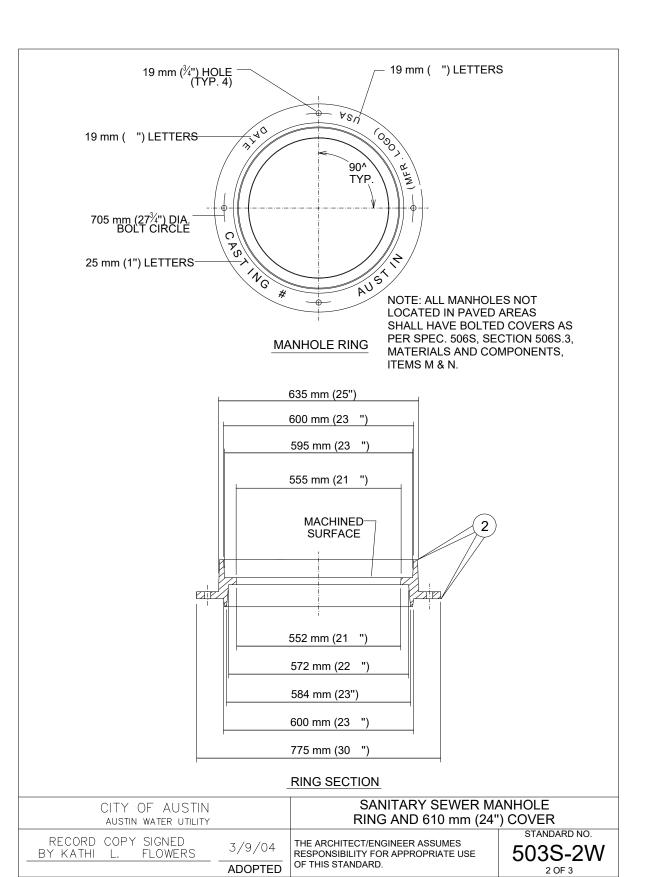
STANDARD DETAILS

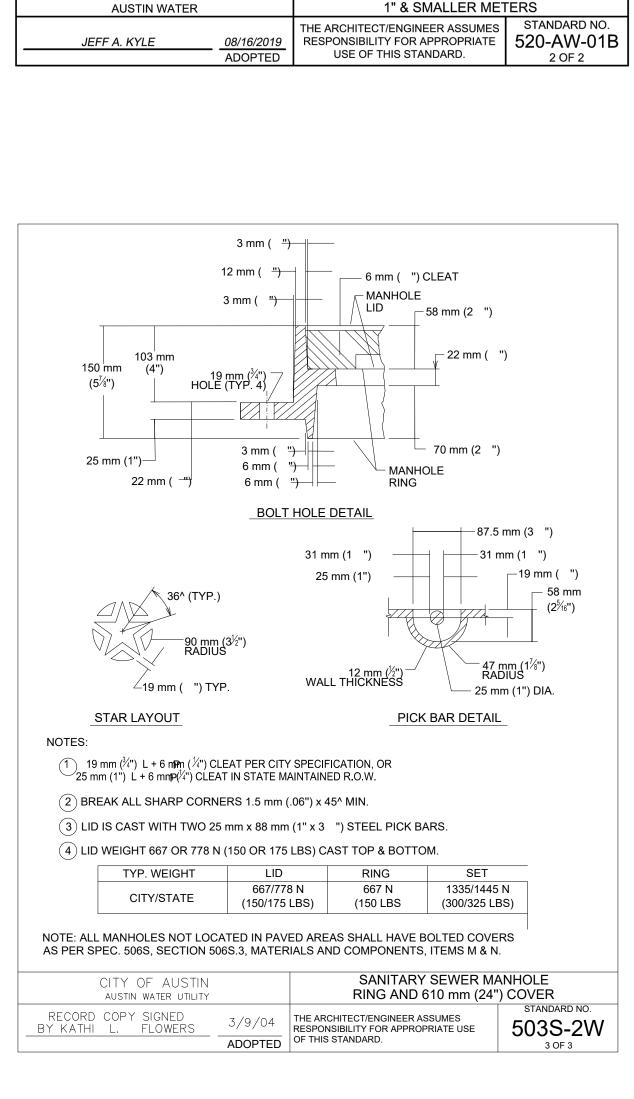
OF 55

AS SHOWN

USE OF THIS STANDARD. ADOPTED - 19 mm (") LETTERS 19 mm (") LETTERS 705 mm (27¾") DIA. BOLT CIRCLE 25 mm (1") LETTERS-NOTE: ALL MANHOLES NOT LOCATED IN PAVED AREAS SHALL HAVE BOLTED COVERS AS PER SPEC, 506S, SECTION 506S,3. MATERIALS AND COMPONENTS, ITEMS M & N. 635 mm (25") 600 mm (23 ' 595 mm (23 ") 555 mm (21 " MACHINED-SURFACE 552 mm (21 ") 572 mm (22 ") 584 mm (23") 600 mm (23 ") 775 mm (30 ") RING SECTION

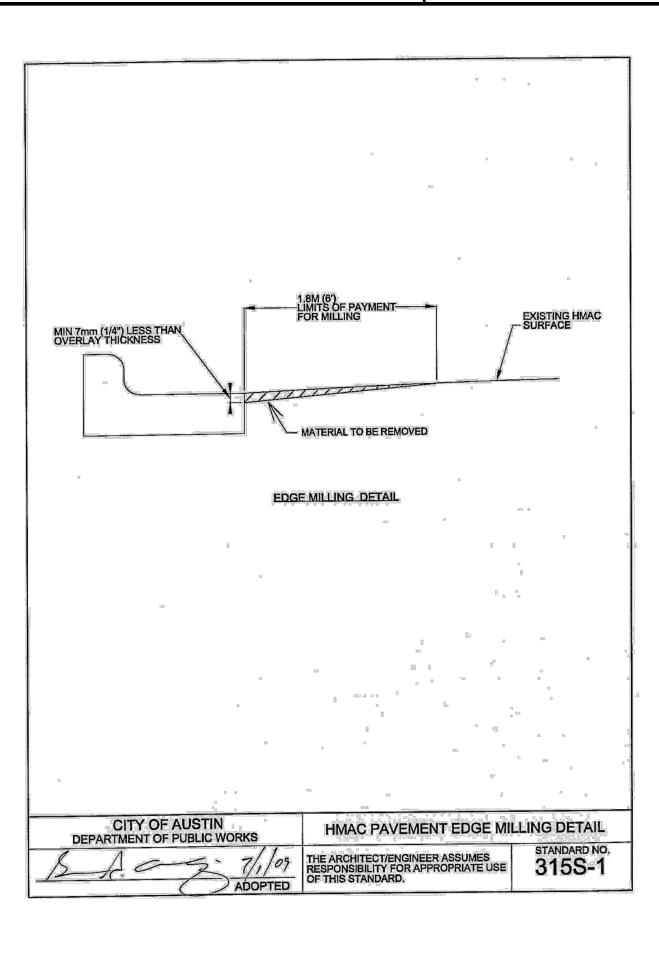


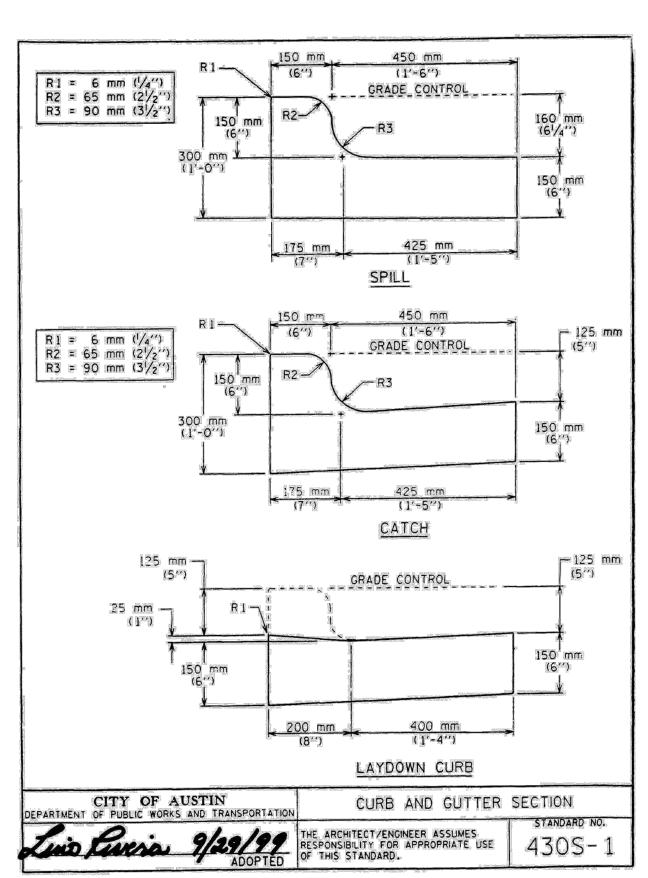


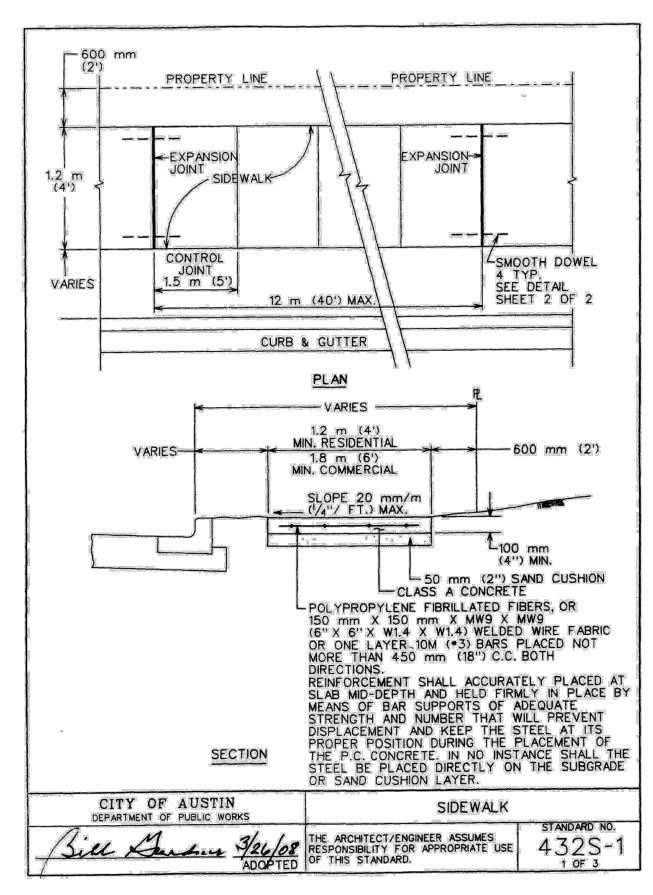


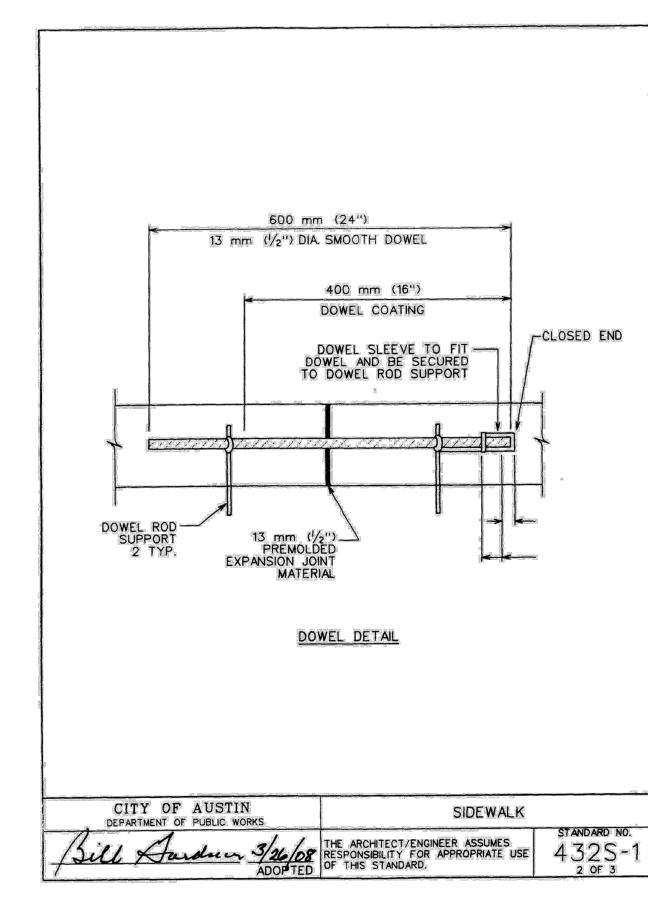
WATER SERVICE & METER INSTALLATION -

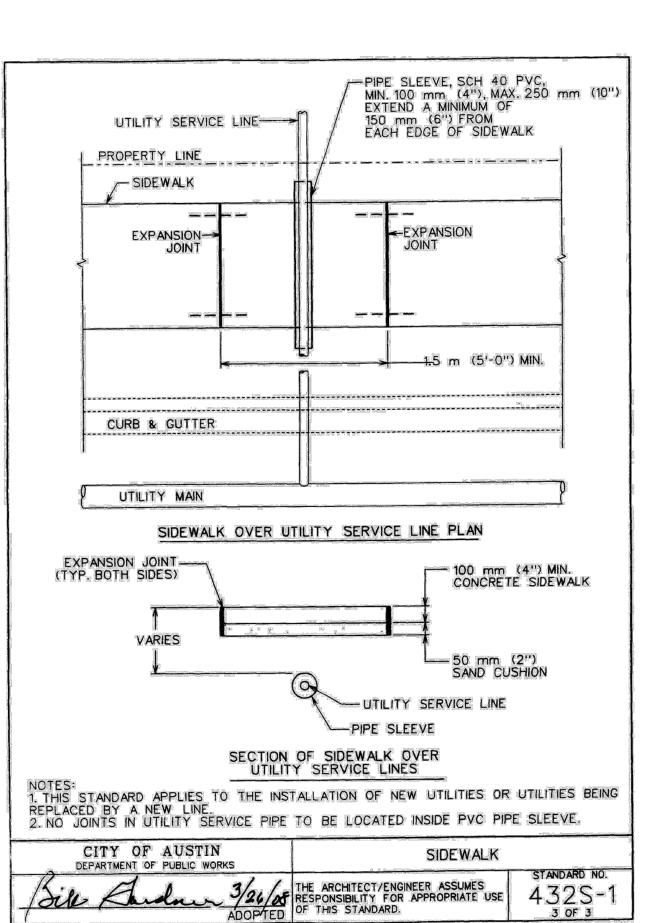
JEFF A. KYLE



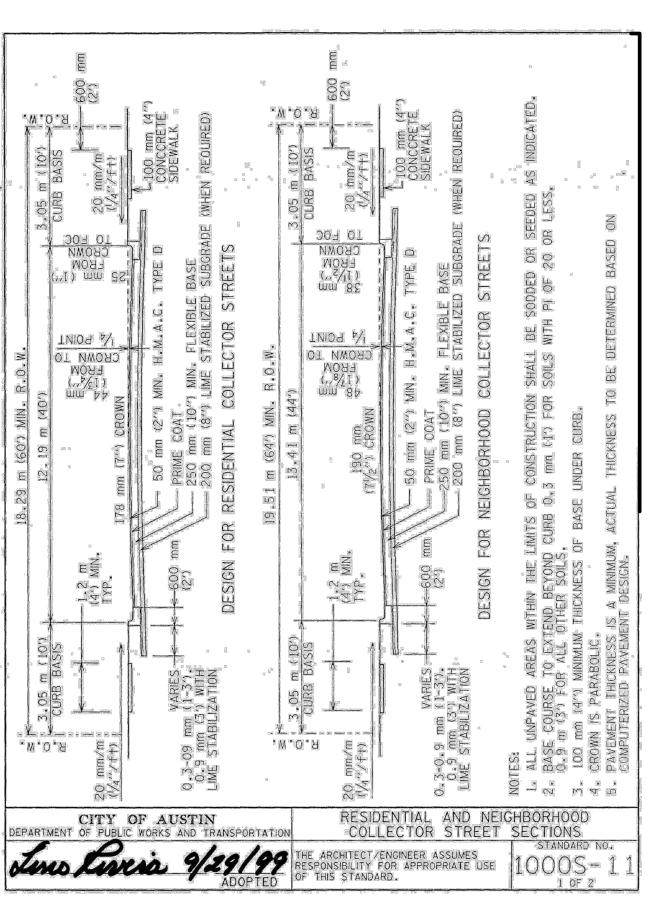


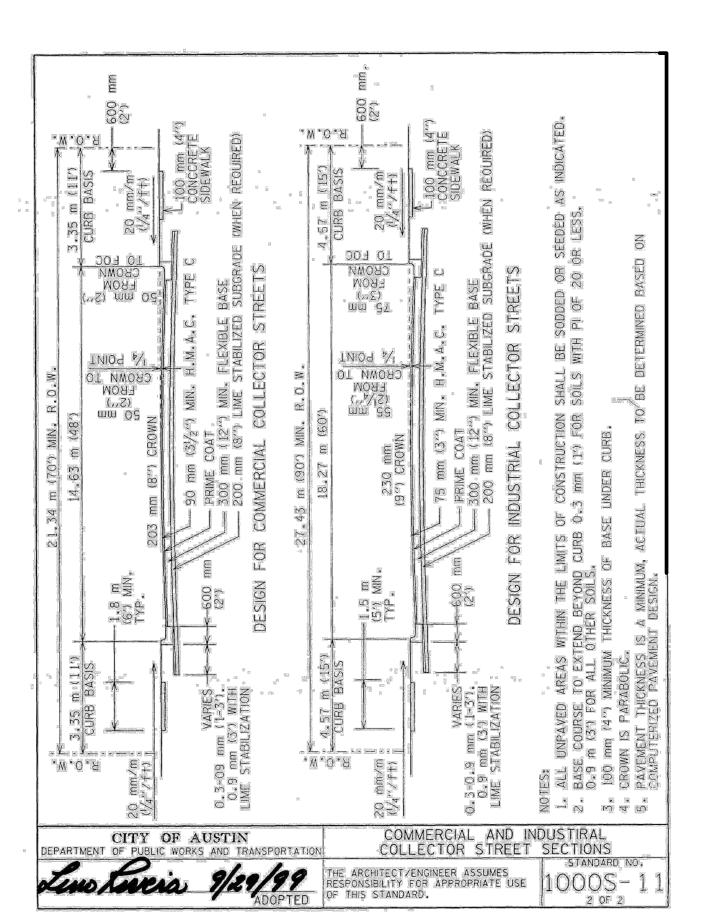


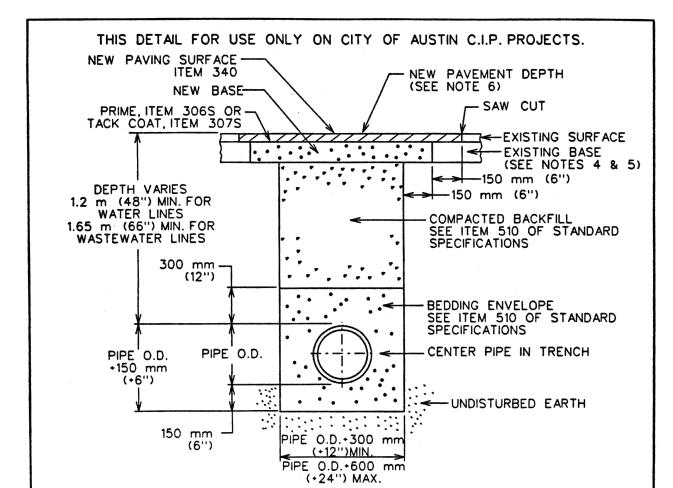




3 OF 3



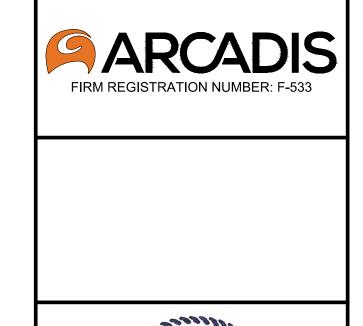




NOTES:

- 1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
- 2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
- 3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
- 4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER. 5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING
- THICKNESS, WHICHEVER IS GREATER. 6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	TYPICAL TRENCH WITH PA	AVED SURFACE
Lean Carly P.E. 8/19/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	510S-3





CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	REVISION	BY
DATE:		NOVEMBER 2020	

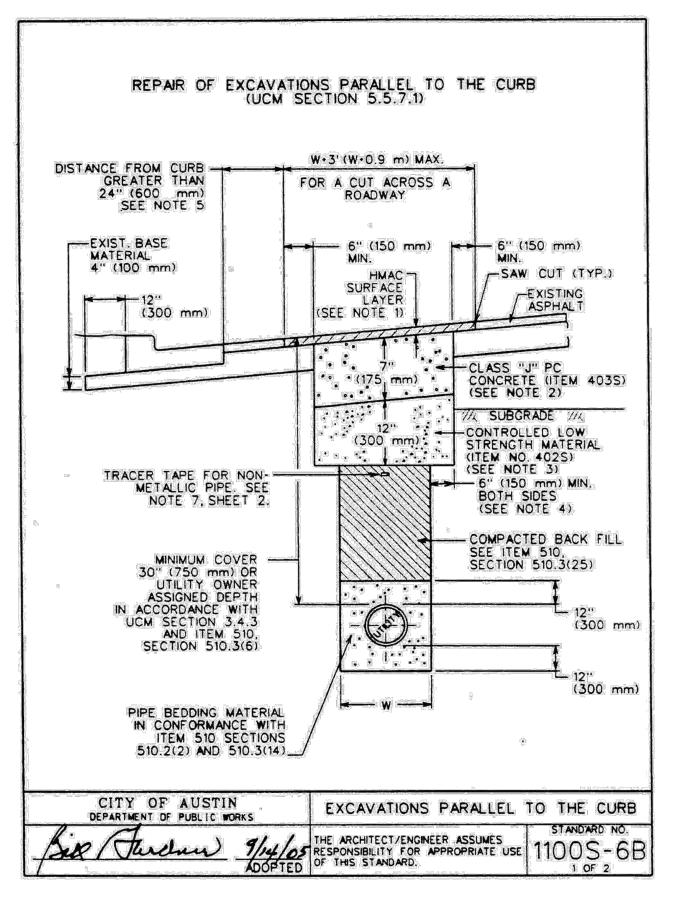
PROJECT NO .: 02908105.0000 J. RECK **DESIGNED BY:** B.SCROGGINS DRAWN BY: H.STEED CHECKED BY: SHEET TITLE

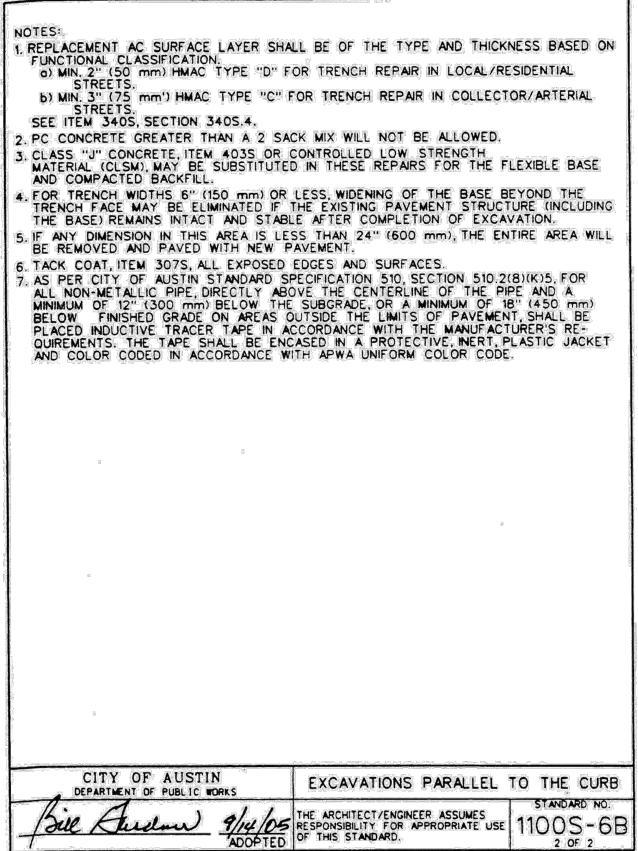
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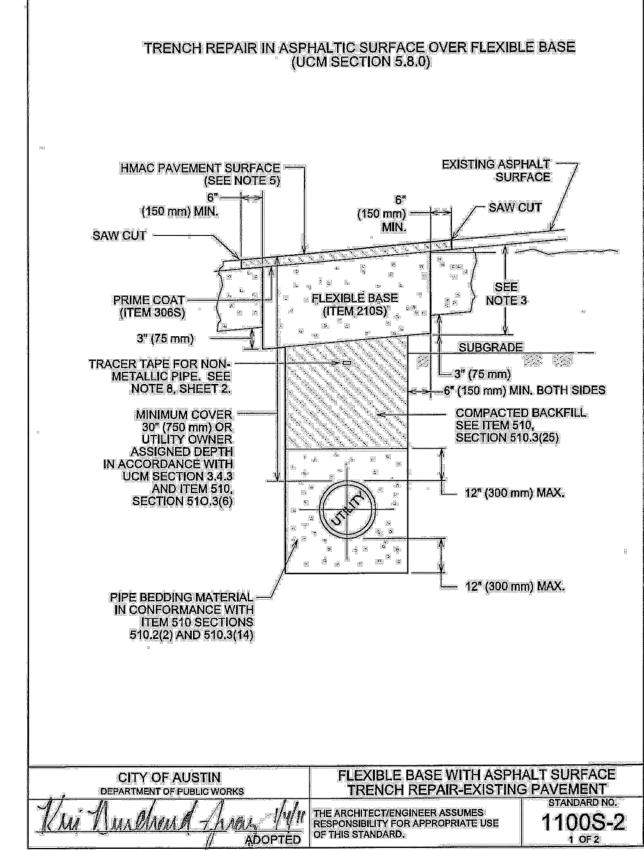
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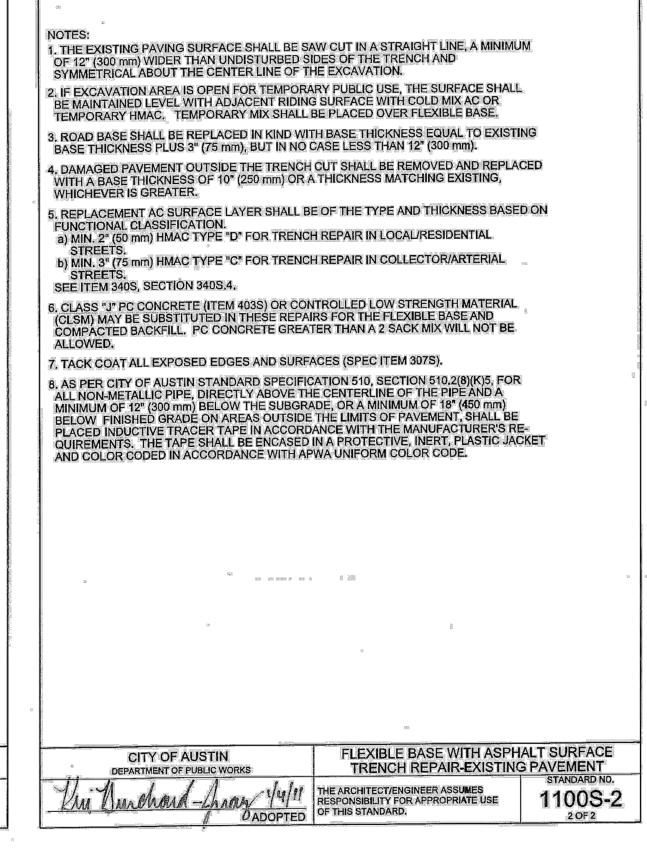
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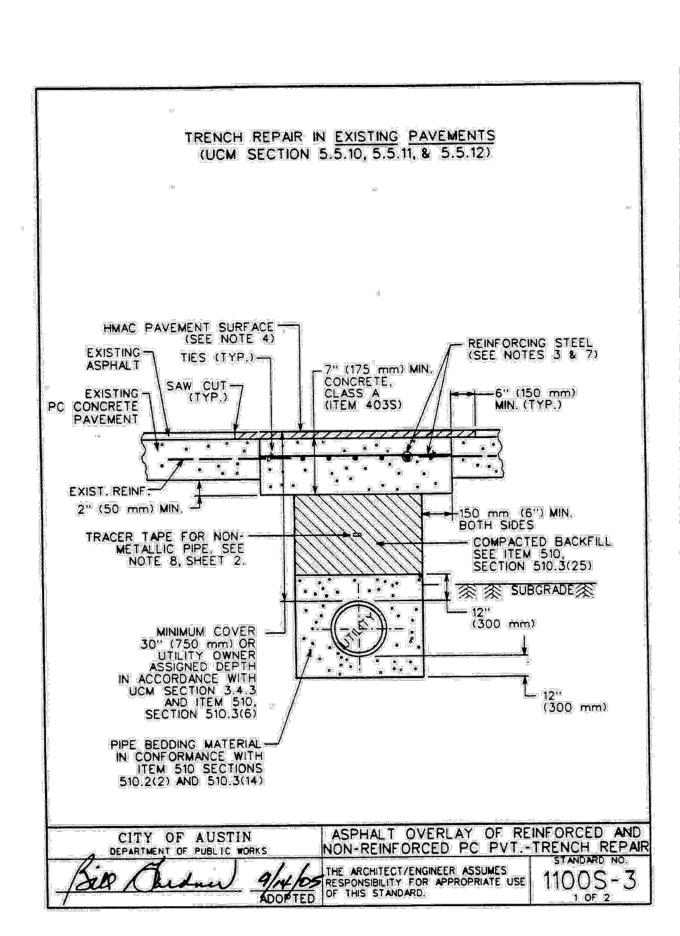
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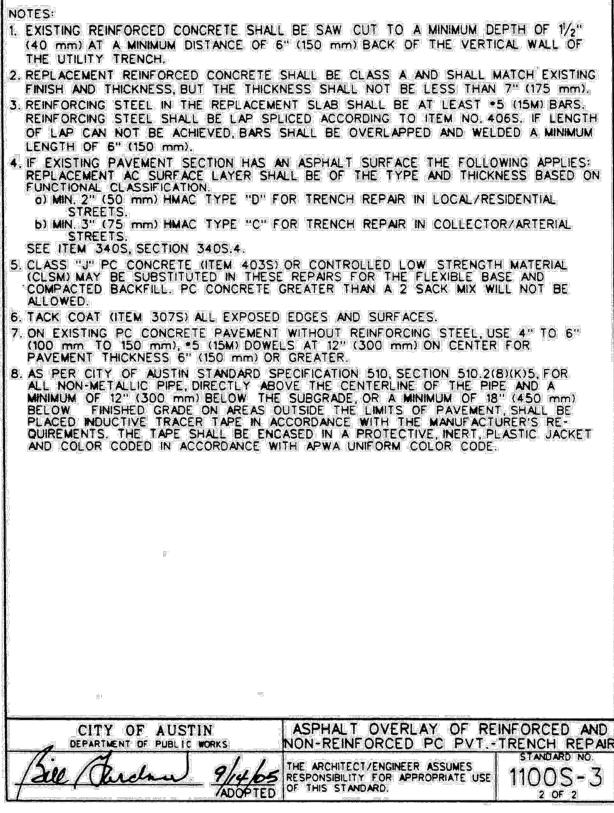


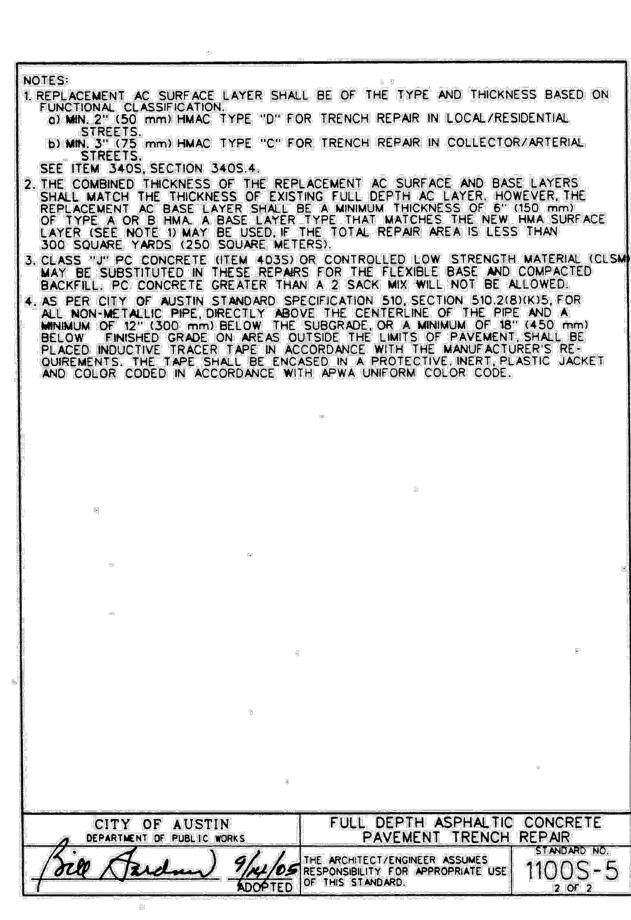


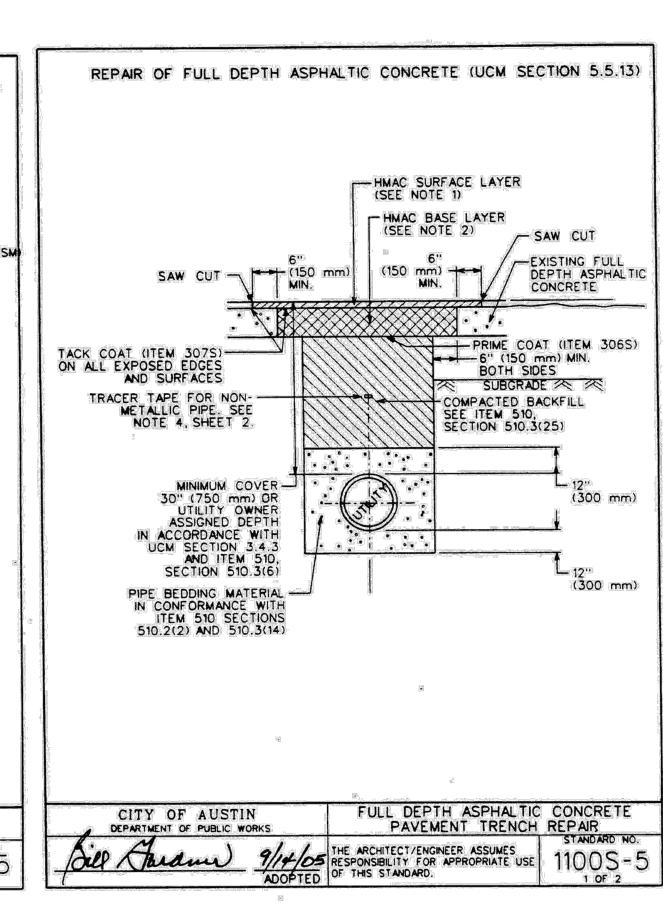




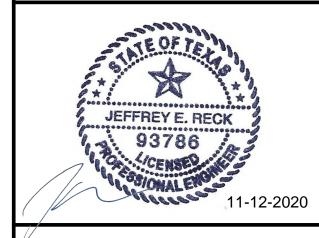












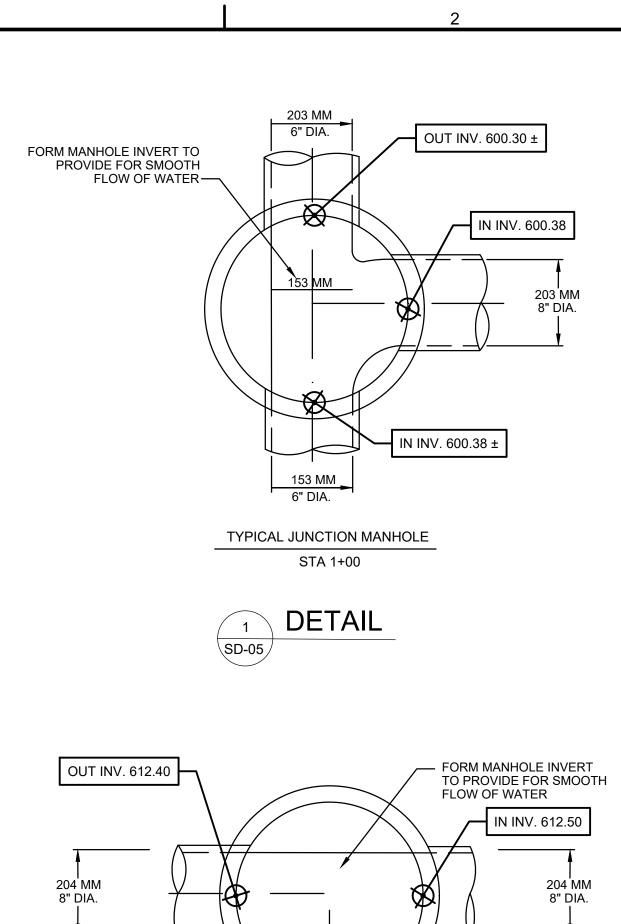
CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY

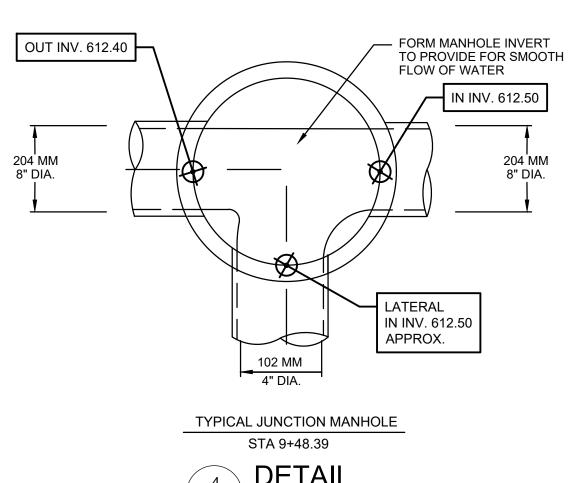


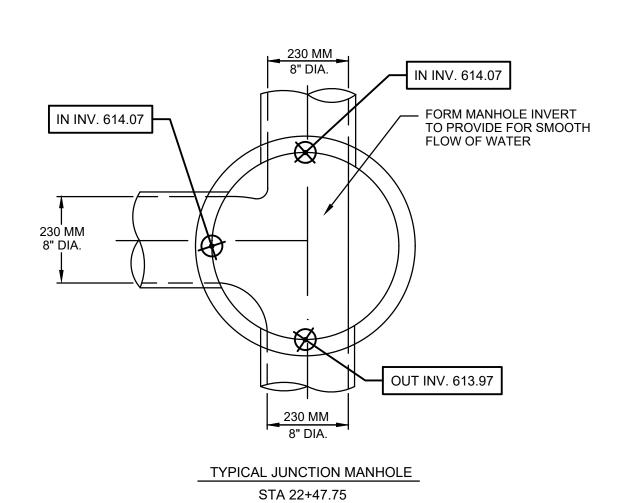
BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

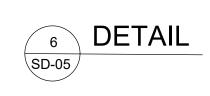
NO. DATE		REVISION	BY		
DATE:		NOVEMBER 2020			
PROJECT NO.:		02908105.0000			
		J. RECK			
DRAW	N BY:	B.SCROGGINS			
CHEC	KED BY:	H.STEED			
SHEE	T TITLE				
		CIV/II			
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			_		
SCALE: AS SHOWN					

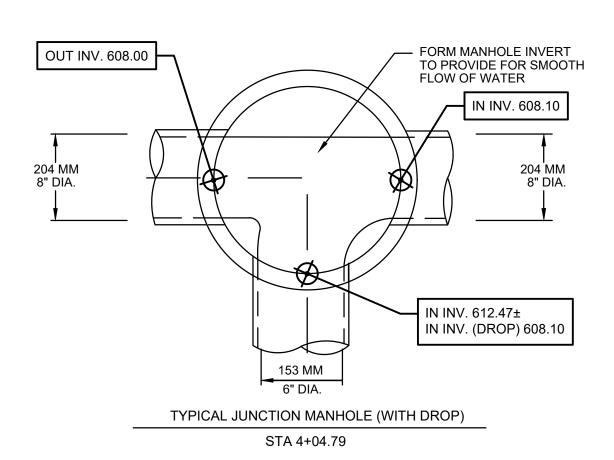
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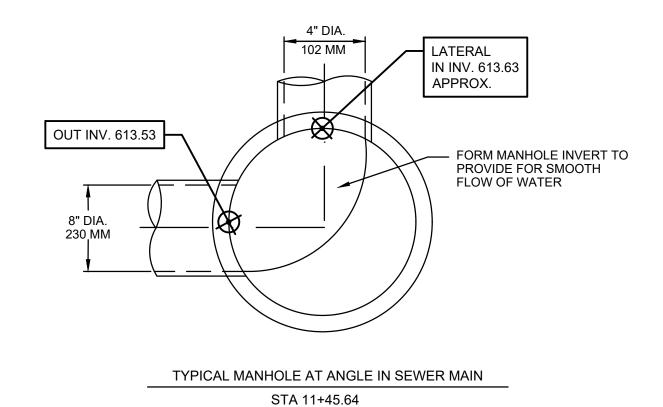




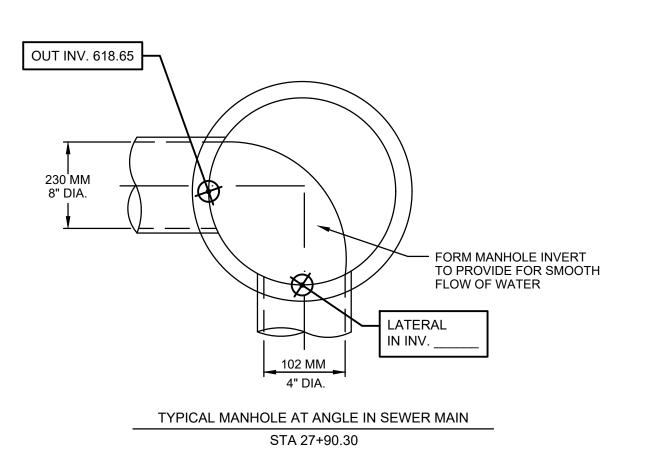




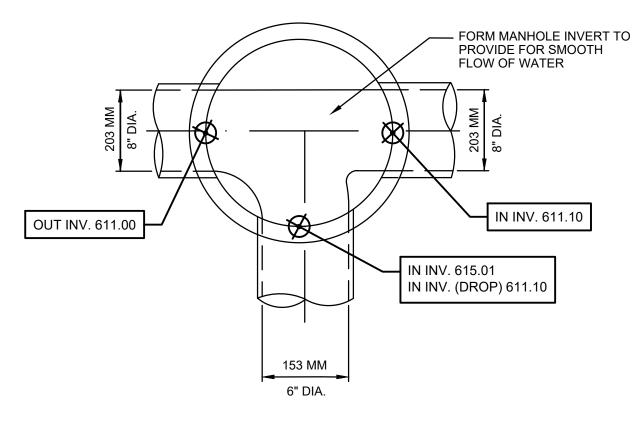










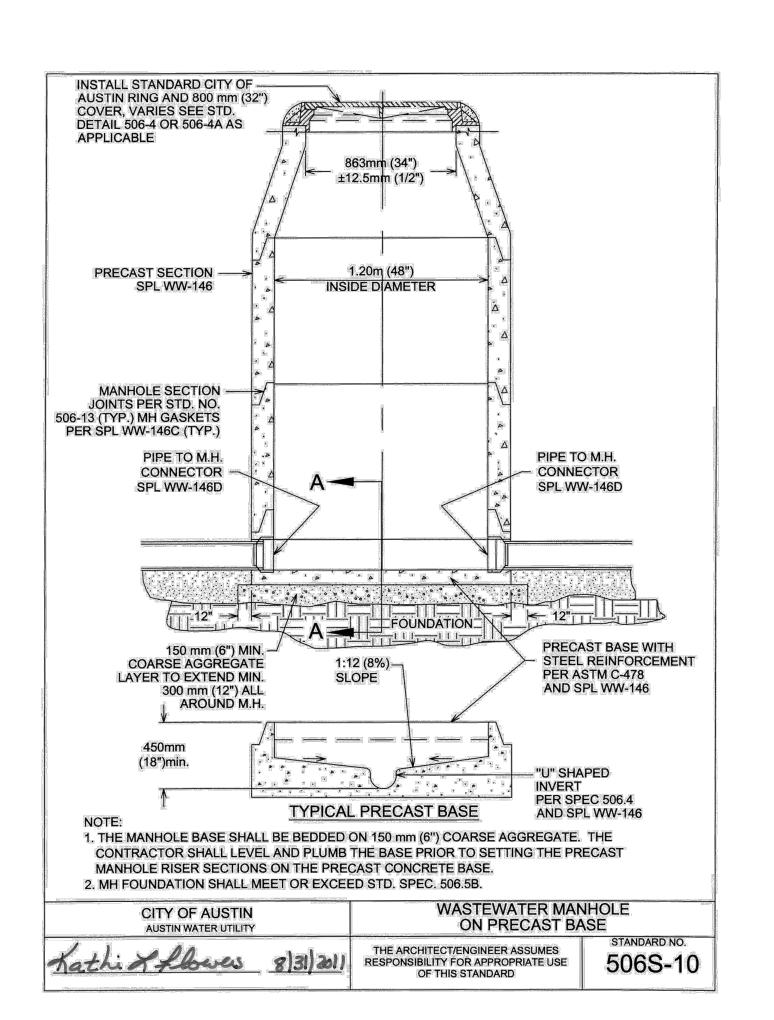


TYPICAL JUNCTION MANHOLE (WITH DROP)

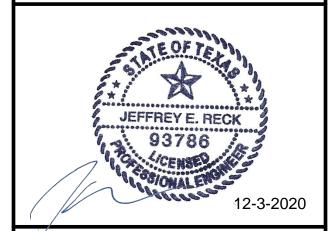
3 DETAIL SD-05

STA 6+98.82









CITY OF AUSTIN, TEXAS AUSTIN WATER UTILITY



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

NO.	DATE	R	REVISION	BY
DATE:		N	IOVEMBER 2020	
PROJE	CT NO.:		02908105.0000	

PROJECT NO.: 02908105.0000

DESIGNED BY: J. RECK

DRAWN BY: B.SCROGGINS

CHECKED BY: H.STEED

CIVIL

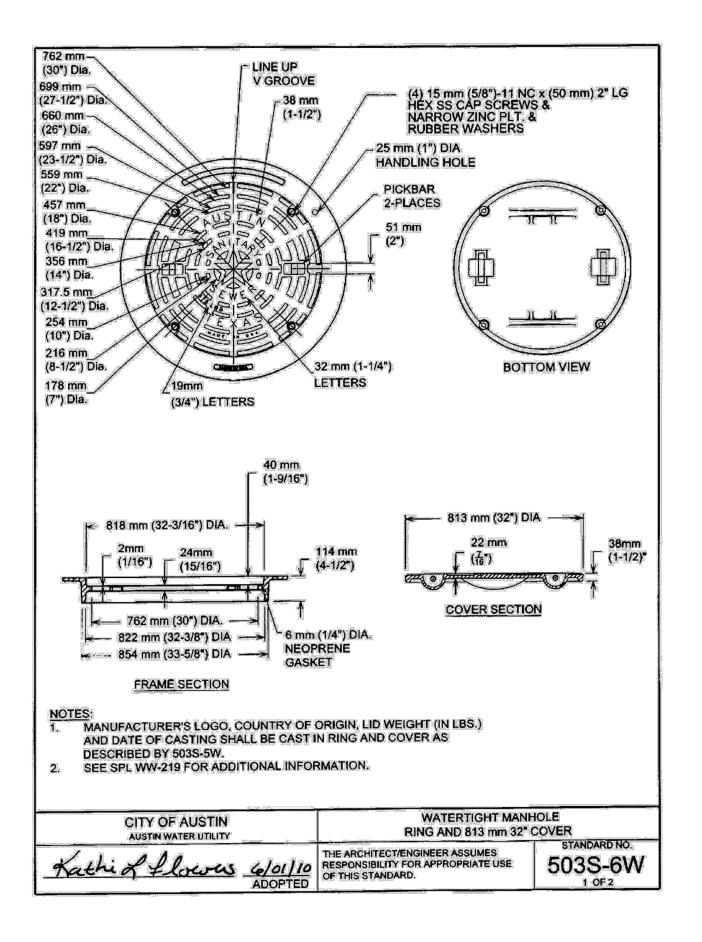
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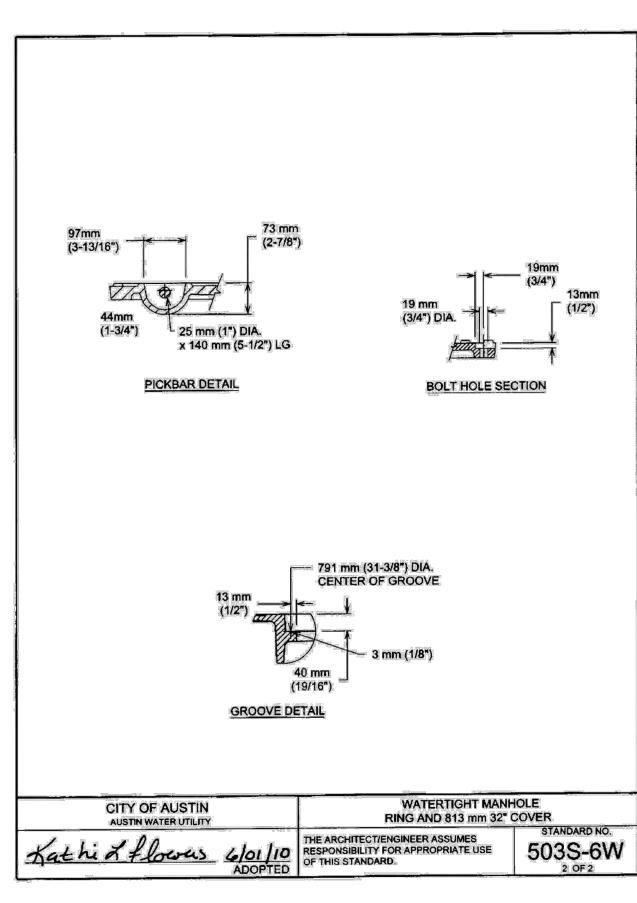
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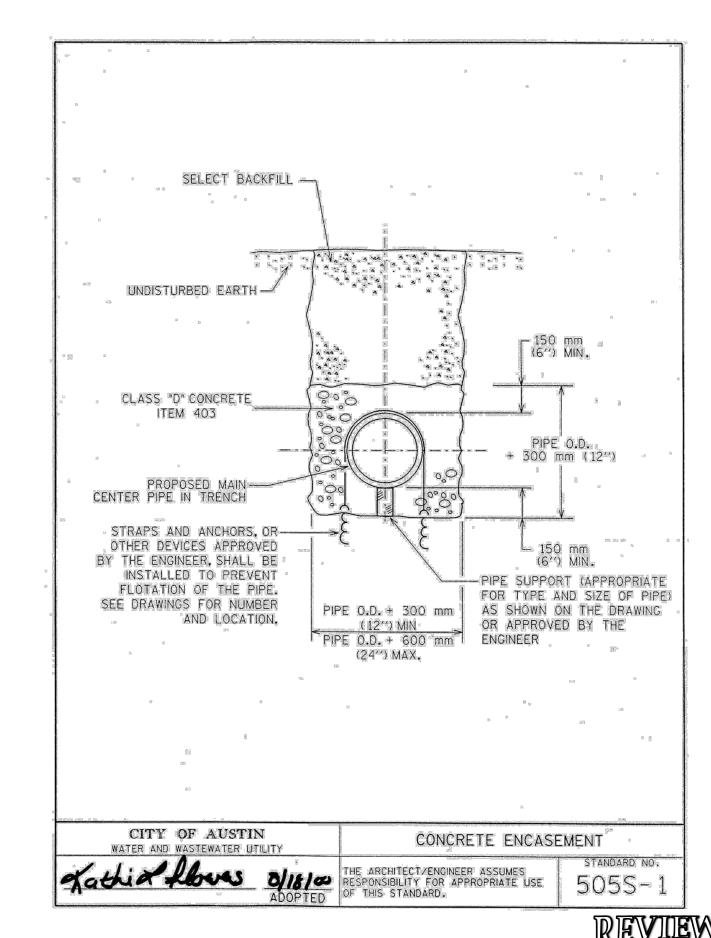
SHEET SD-05

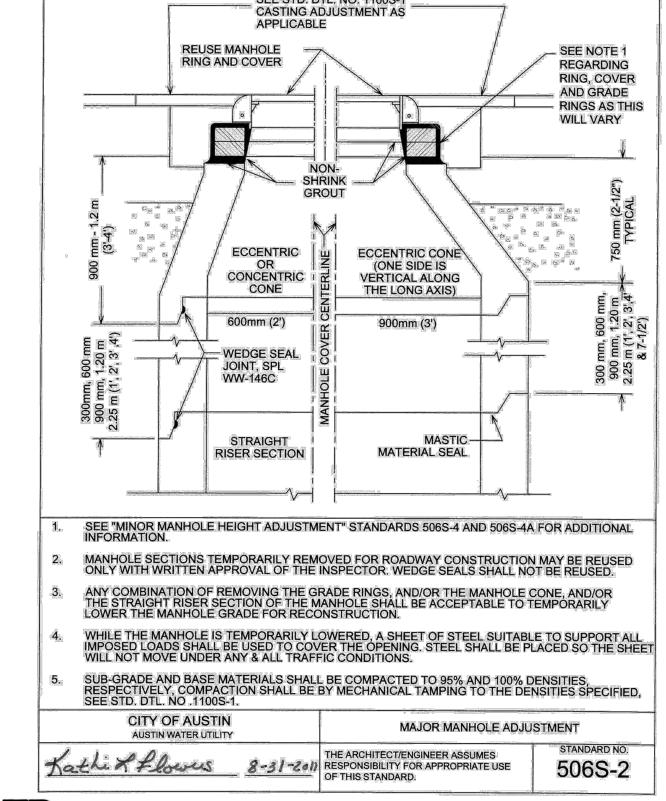
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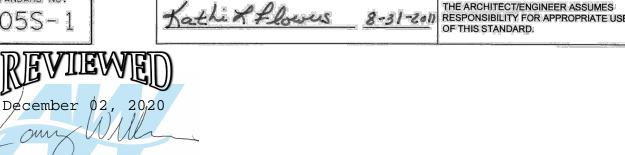


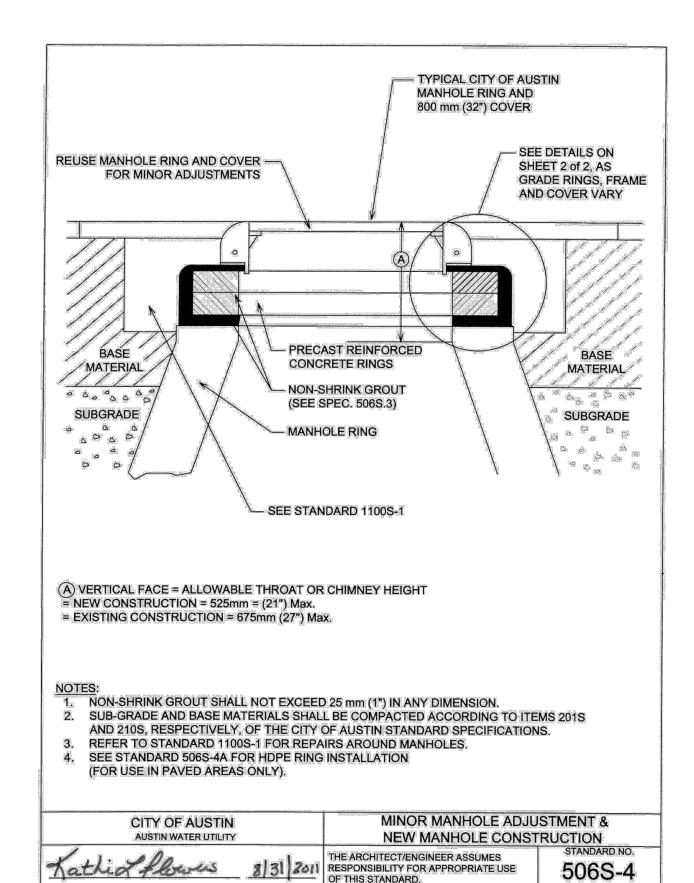




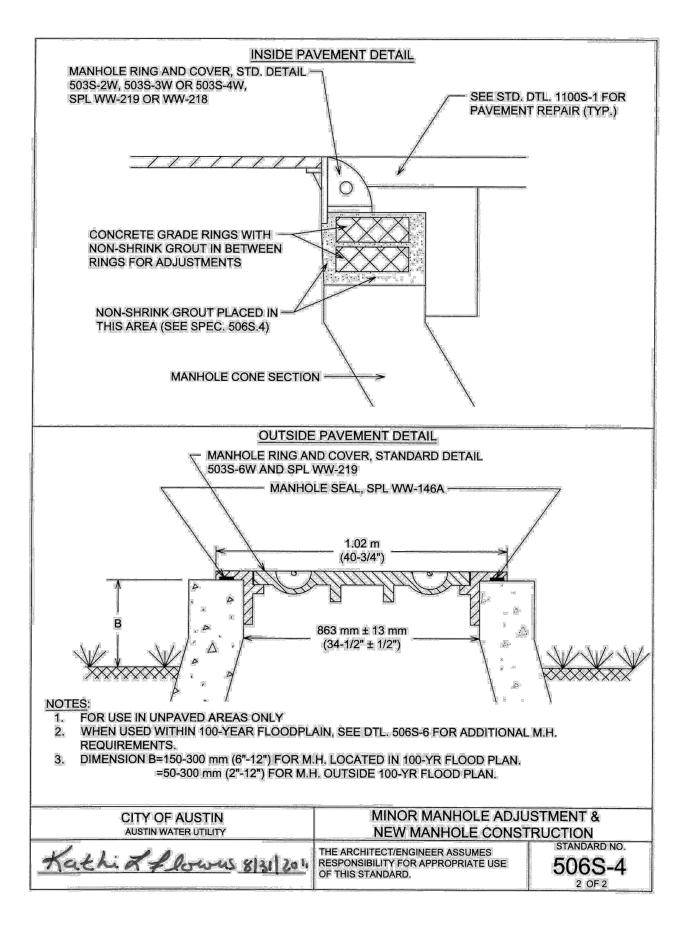
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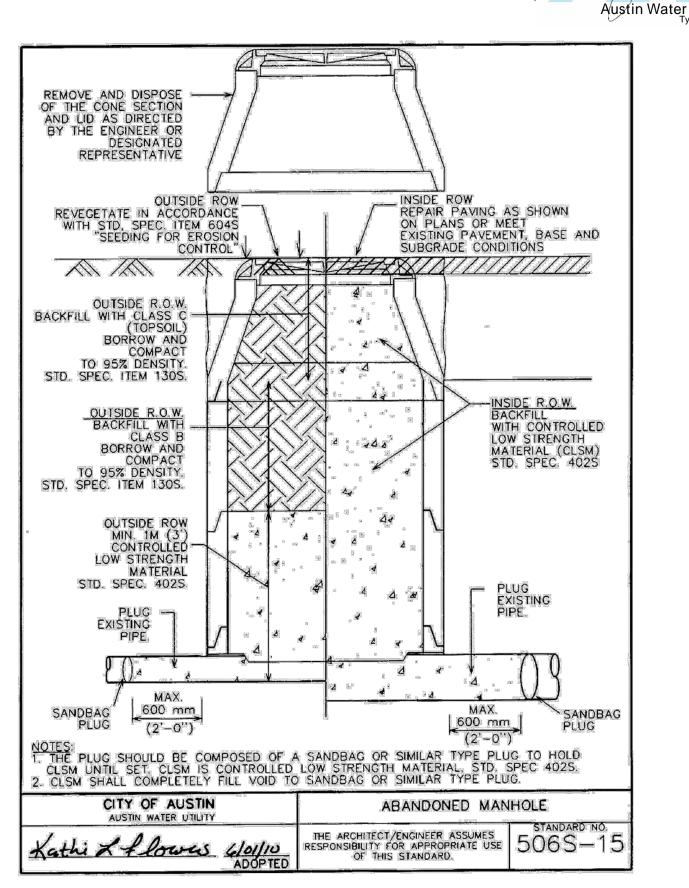
WASTEWATER MANHOLE

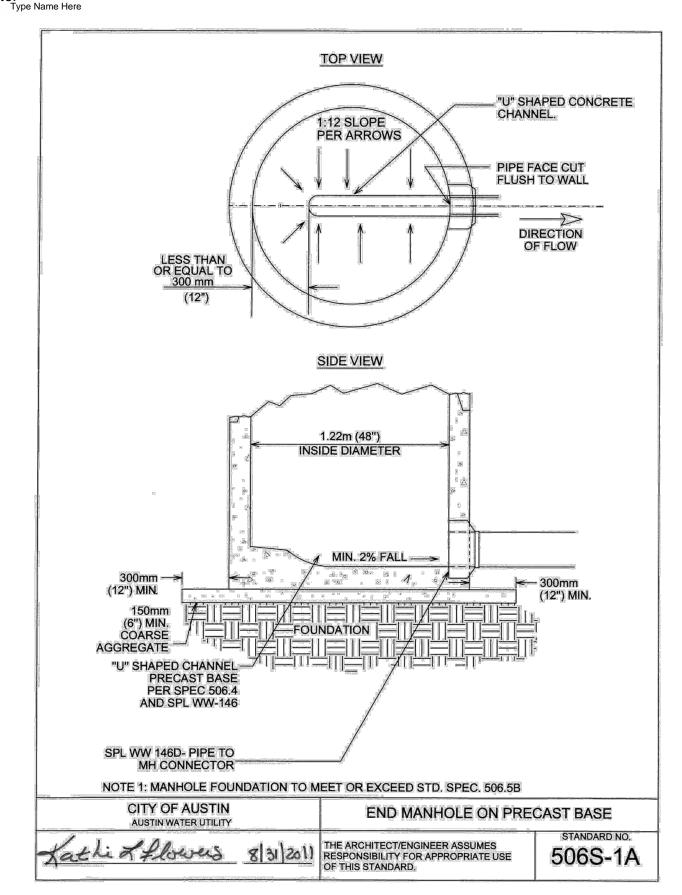


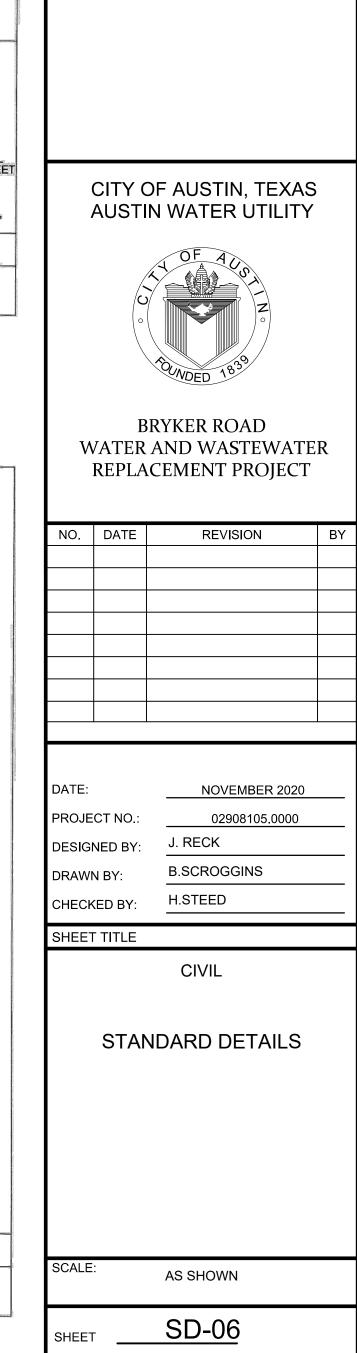


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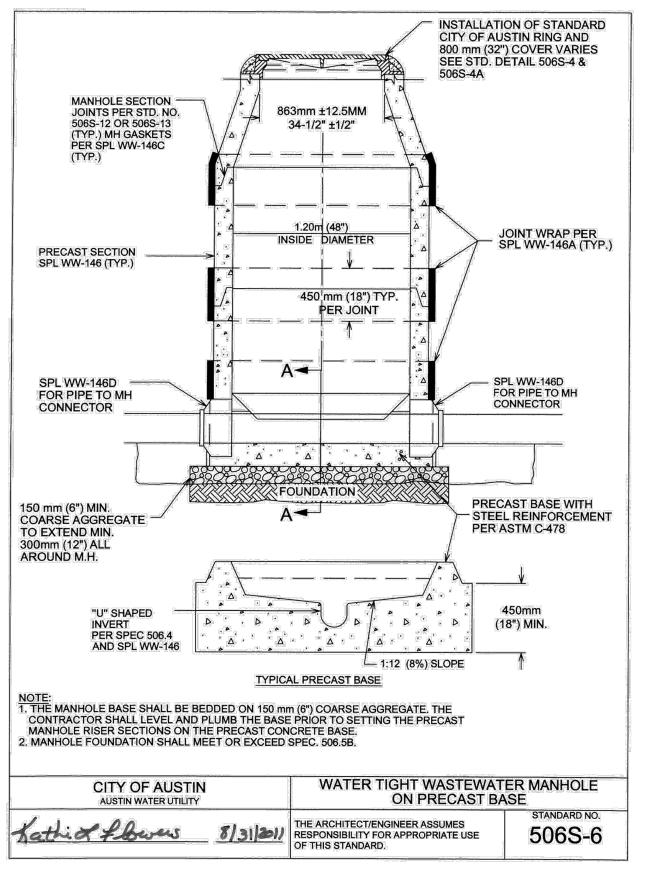




OF

JEFFREY E. RECK

11-12-2020



CITY OF AUSTIN

AUSTIN WATER

ADOPTED

RECORD COPY SIGNED

SINGLE AND DOUBLE WASTEWATER

SERVICE CONNECTION

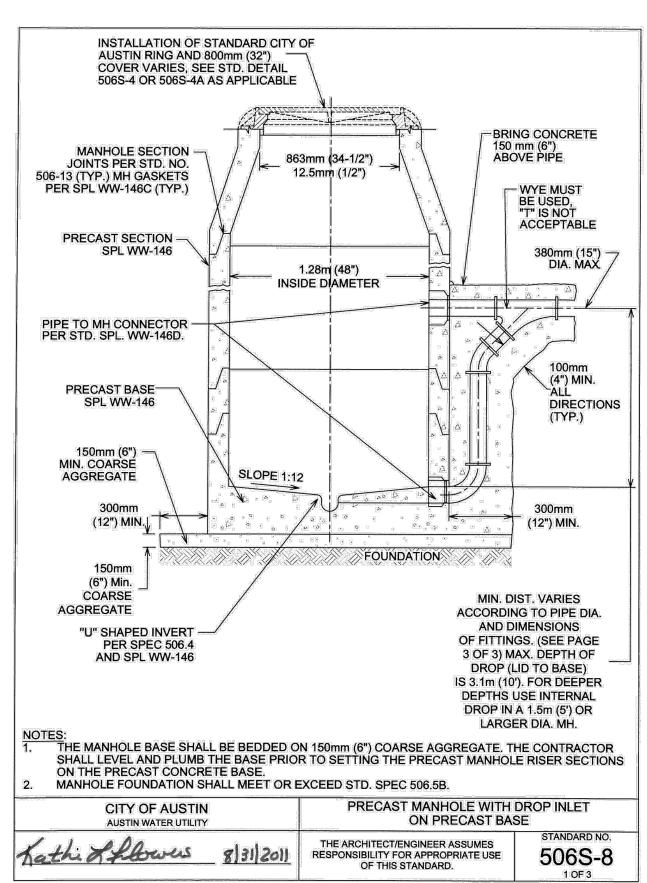
THE ARCHITECT/ENGINEER ASSUMES

RESPONSIBILITY FOR APPROPRIATE

USE OF THIS STANDARD.

STANDARD NO.

520-AW-01C



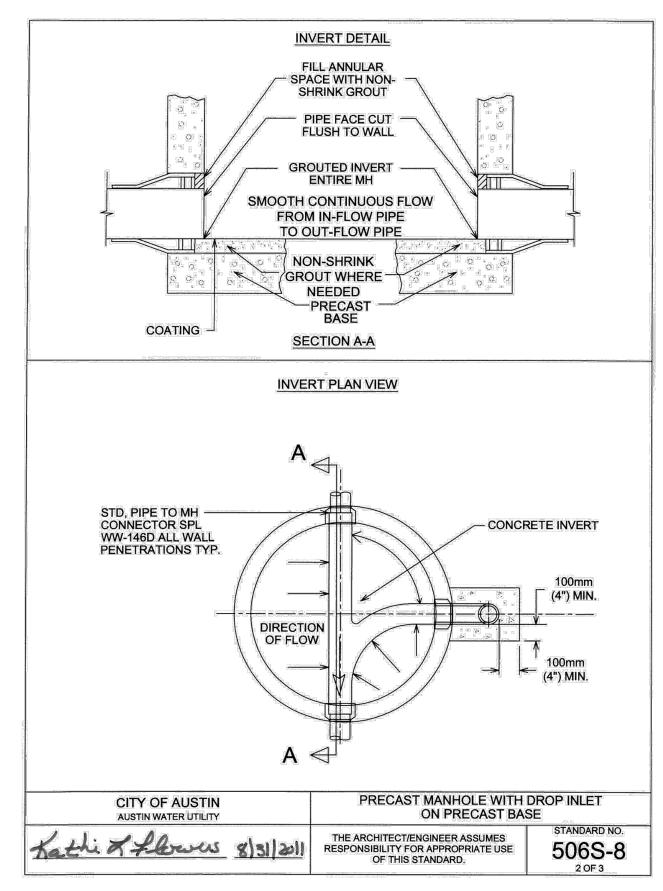
CITY OF AUSTIN

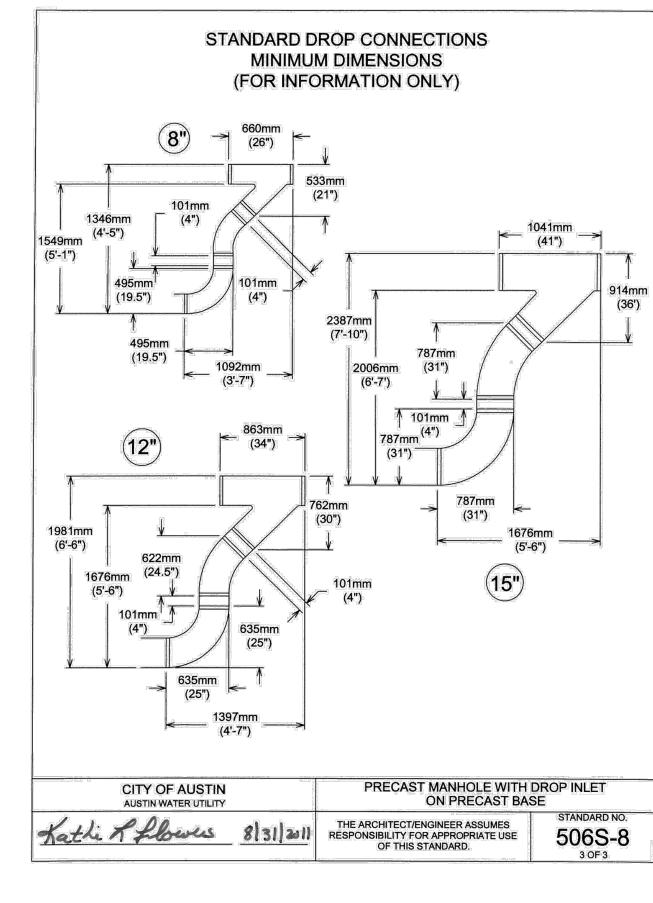
AUSTIN WATER

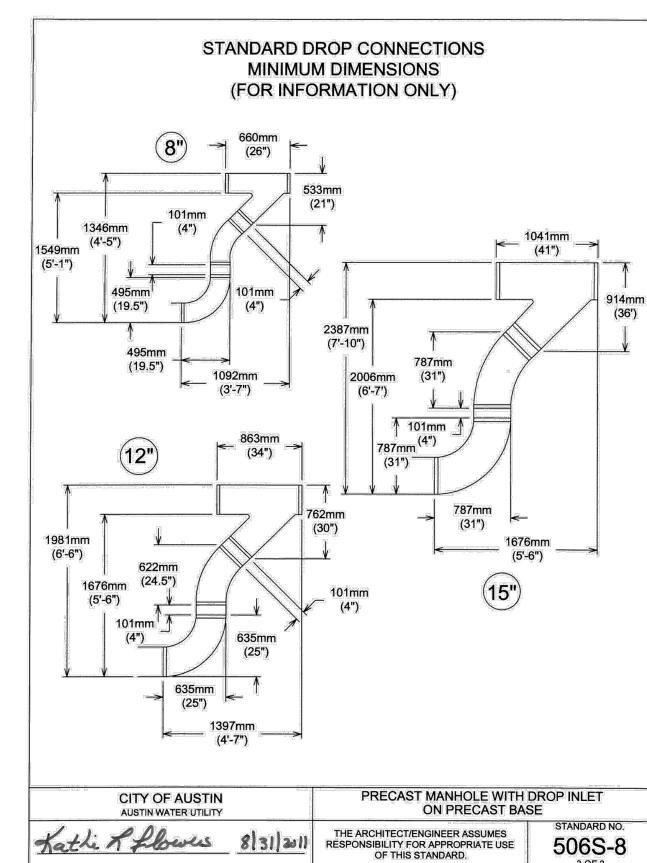
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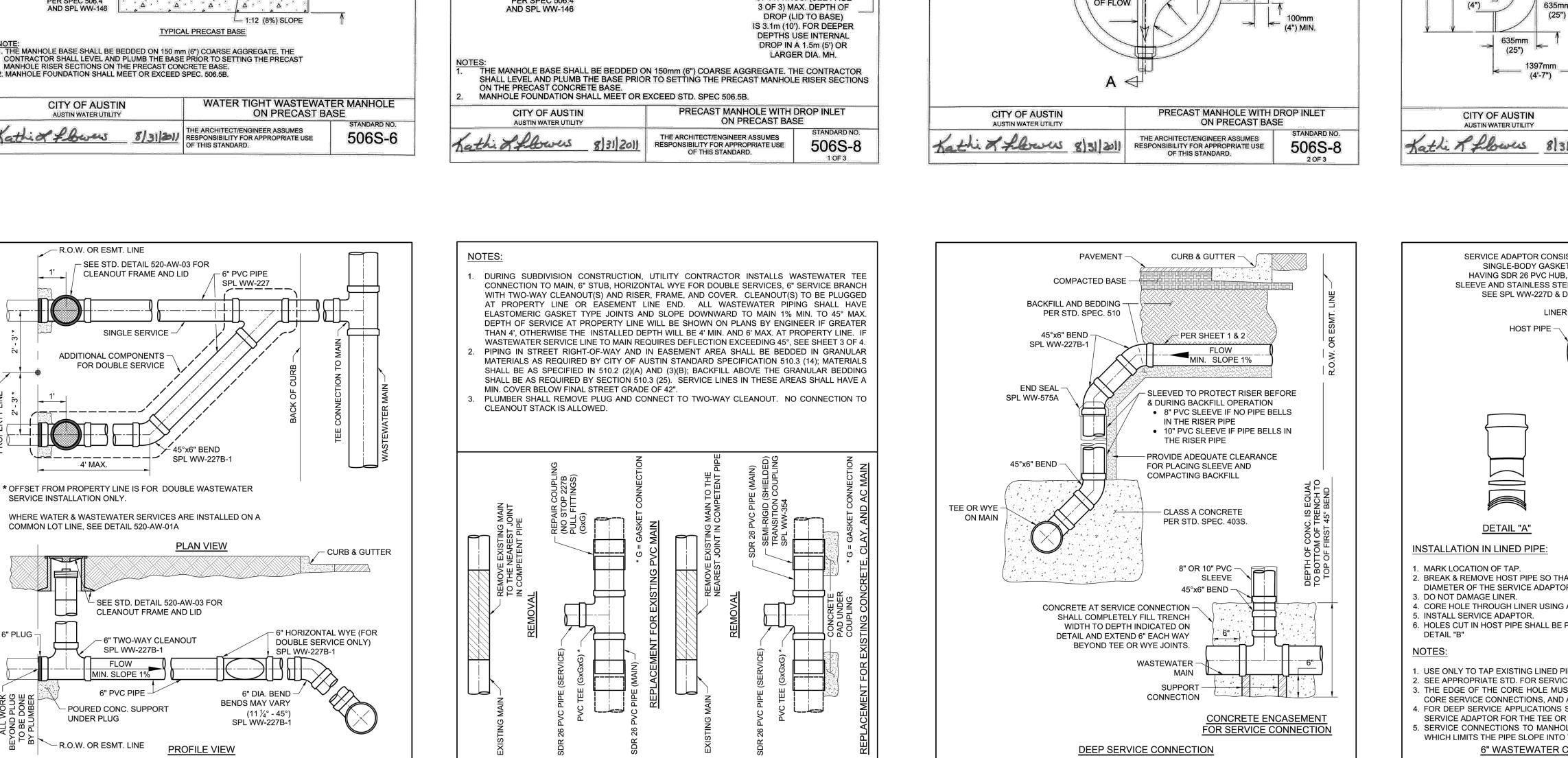
RECORD COPY SIGNED

JEFF A. KYLE









SINGLE AND DOUBLE WASTEWATER

THE ARCHITECT/ENGINEER ASSUMES

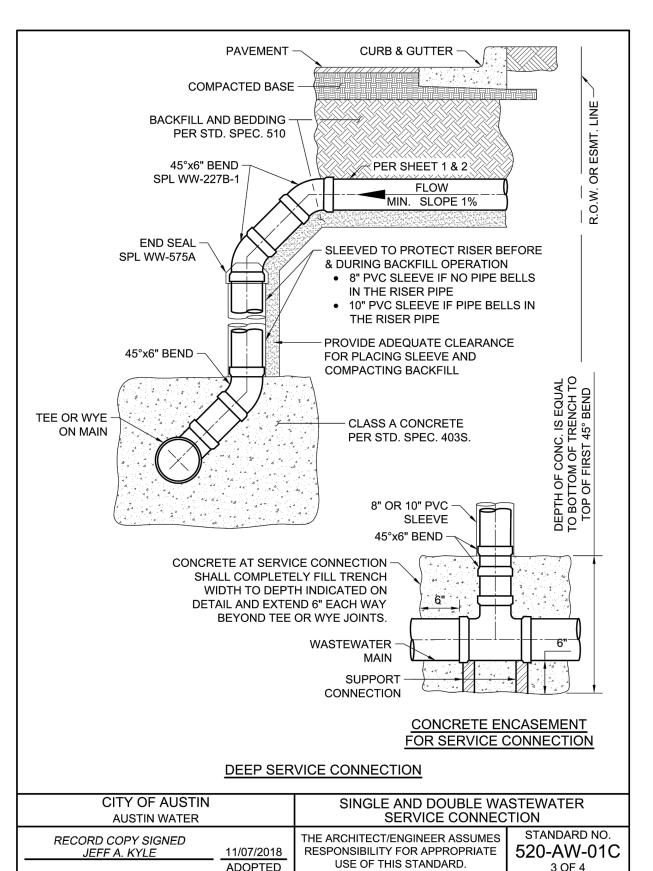
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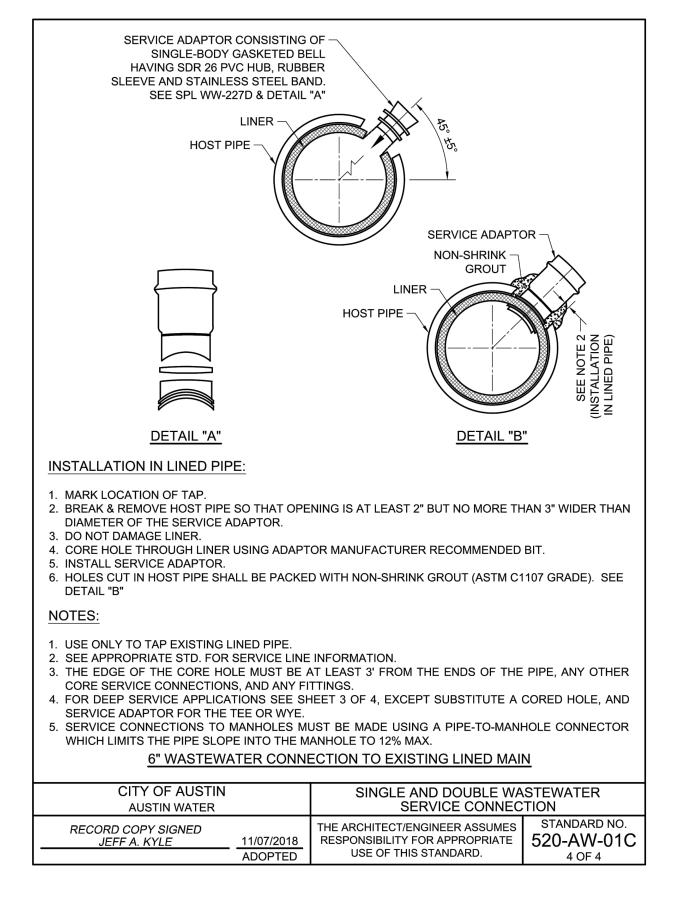
SERVICE CONNECTION

RESPONSIBILITY FOR APPROPRIATE | 520-AW-01C

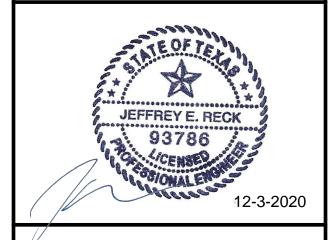
STANDARD NO.

2 OF 4











CITY OF AUSTIN, TEXAS **AUSTIN WATER UTILITY**



BRYKER ROAD WATER AND WASTEWATER REPLACEMENT PROJECT

	NO.	DATE	REVISION	BY	
l					

NOVEMBER 2020 PROJECT NO.: 02908105.0000 J. RECK DESIGNED BY: N. CANDELAS DRAWN BY: H.STEED CHECKED BY

SHEET TITLE

CIVIL

STANDARD DETAILS

AS SHOWN

55 OF <u>55</u>